FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

OFFICE OF AIR MANAGEMENT

Laketon Refining Corporation 2784 West Lukens Lake Road Laketon, Indiana 46943

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F 169-7939-00006	
Issued by: Paul Dubenetzky, Branch Chief Office of Air Management	Issuance Date:

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SECTION A

SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary asphalt liquid binder manufacturing source

Authorized individual: Lewis L. Davis

Source Address: 2784 West Lukens Lake Road, Laketon, Indiana 46943 Mailing Address: PO Box 68123, Indianapolis, Indiana 46268-0123

Phone Number: 317 - 875 - 4670

SIC Code: 2951 County Location: Wabash

Source Location Status: Attainment for all criteria pollutants

Source Status: Federally Enforceable State Operating Permit (FESOP)

Minor Source, under PSD Rules;

Minor Source, Section 112 of the Clean Air Act

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

This stationary source consists of the following emission units and pollution control devices:

- (a) One (1) steam boiler, known as SB-901, natural gas, constructed in 1970, exhausted through SB-901, rated at 36.0 million British thermal units per hour.
- (b) Two (2) asphalt vertical fixed roof storage tanks, known as ST-009 and ST-010, constructed in 1895, capacity: 1,470,000 gallons, each.
- (c) One (1) heavy oils, kerosene, biofuel or asphalt storage tank, known as ST-021, constructed in 1975, capacity: 8,820 gallons.
- (d) One (1) wastewater vertical fixed roof storage tank, known as ST-023, constructed in 1956, capacity: 428,400 gallons.
- (e) Two (2) kerosene vertical fixed roof storage tanks, known as ST-024 and ST-025, constructed in 1968, capacity: 23,100 gallons, each.
- (f) One (1) slop oil vertical fixed roof storage tank, known as ST-028, constructed in 1956, capacity: 428,400 gallons.
- (g) Two (2) asphalt vertical fixed roof storage tanks, known as ST-029 and ST-030, constructed in 1956, capacity: 428,400 gallons, each.
- (h) Two (2) cutback asphalt vertical fixed roof storage tanks, known as ST-034 and ST-035, constructed in 1956, capacity: 215,880 gallons, each.
- (i) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-045, constructed in 1968, capacity: 428,484 gallons.

- (j) One (1) asphalt vertical fixed roof storage tank, known as ST-056, constructed in 1968, capacity: 852,894 gallons.
- (k) One (1) natural gas-fired steam boiler, known as SB-903, with No.1 or No.2 oil as a backup fuel, installed in 1997, exhausted through Stack SB-903, rated at 8.37 million British thermal units per hour.
- (I) One (1) natural gas fired external asphalt tank (ST-030) heater, known as THE-930, constructed in 1956, rated at 7.15 million British thermal units per hour.
- (m) Five (5) internal natural gas fired, direct fired tube heaters, known as THI-943 (ST-043), THI-944 (ST-044), THI-956 (ST-056), THI-960 (ST-060) and THI-961 (ST-061) constructed in 1965, 1968, 1968, 1985 and 1985, respectively, rated at 9.0, 4.5, 3.0, 21.0 and 18.0 million British thermal units per hour.
- (n) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-007, constructed in 1956, capacity: 289,800 gallons.
- (o) One (1) heavy oils, kerosene or asphalt vertical fixed roof storage tank, known as ST-008, constructed in 1956, capacity: 289,800 gallons.
- (p) Three (3) wastewater vertical fixed roof storage tanks, known as ST-002, ST-003, and ST-006, constructed in 1956, capacity: 180,600 gallons, each.
- (q) One (1) oily wastewater and slop oil vertical fixed roof storage tank, known as ST-032, constructed in 1956, capacity: 42,451 gallons.
- (r) One (1) wastewater vertical fixed roof storage tank, known as ST-033, constructed in 1956, capacity: 85,386 gallons.
- (s) Three (3) sodium hydroxide storage tanks, known as ST-036, ST-037 and ST-038, constructed in 1965, capacity: 20,118 gallons, each.
- (t) One (1) asphalt vertical fixed roof storage tank, known as ST-043, constructed in 1965, capacity: 2,392,068 gallons.
- (u) One (1) asphalt vertical fixed roof storage tank, known as ST-044, constructed in 1968, capacity: 1,105,188 gallons.
- (v) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-046, constructed in 1960, capacity: 427,644 gallons.
- (w) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-047, constructed in 1960, capacity: 428,568 gallons.
- (x) One (1) waste water vertical fixed roof storage tank, known as ST-048, constructed in 1956, capacity: 110,292 gallons.
- (y) One (1) oily wastewater and slop oil vertical fixed roof storage tank, known as ST-49, capacity: 110,171 gallons.
- (z) One (1) crude oil, heavy oils, or kerosene interface vertical fixed roof storage tank, known as ST-051, constructed in 1960, capacity: 5,000 gallons.

- (aa) One (1) heavy oils, or kerosene vertical fixed roof storage tank, known as ST-052, constructed in 1973, capacity: 6,006 gallons.
- (bb) One (1) cutback asphalt vertical fixed roof storage tank, known as ST-053, constructed in 1956, capacity: 118,692 gallons.
- (cc) One (1) kerosene vertical fixed roof storage tank, known as ST-054, constructed in 1968, capacity: 120,078 gallons.
- (dd) One (1) asphalt vertical fixed roof storage tank, known as ST-055, constructed in 1968, capacity: 1,520,148 gallons.
- (ee) One (1) slop oil vertical fixed roof storage tank, known as ST-057, constructed in 1956, capacity: 85,386 gallons.
- (ff) One (1) heavy oils, kerosene or asphalt vertical fixed roof storage tank, known as ST-058, constructed in 1973, capacity: 6,015 gallons.
- (gg) One (1) oily wastewater and slop oil vertical fixed roof storage tank, known as ST-059, capacity: 37,983 gallons.
- (hh) One (1) asphalt vertical fixed roof storage tank, known as ST-060, constructed in 1985, capacity: 2,341,920 gallons.
- (ii) One (1) asphalt vertical fixed roof storage tank, known as ST-061, constructed in 1985, capacity: 5,019,042 gallons.
- (jj) Four (4) heavy oils, kerosene or asphalt vertical fixed roof storage tanks, known as ST-085, ST-086, ST-087 and ST-088, constructed in 1989, capacity: 30,000 gallons, each.
- (kk) Two (2) slop oil vertical fixed roof storage tanks, known as ST-089 and ST-090, constructed in 1991, capacity: 30,000 gallons, each.
- (II) Two (2) heavy oils, kerosene or asphalt vertical fixed roof storage tanks, known as ST-091 and ST-092, constructed in 1991, capacity: 30,000 gallons, each.
- (mm) One (1) heavy oils, kerosene, or asphalt vertical fixed roof storage tank, known as ST-093, constructed in 1991, capacity: 30,000 gallons.
- (nn) Two (2) heavy oils, kerosene or asphalt vertical fixed roof storage tanks, known as ST-094 and ST-095, constructed in 1994, capacity: 30,000 gallons, each.
- (oo) One (1) asphalt anti-stripping additive vertical fixed roof storage tank, known as ST-096, capacity: 13,000 gallons.
- (pp) One (1) asphalt cement loading rack, known as LRA-1, capacity: 54,000 gallons per hour.
- (qq) One (1) MC cutback asphalt loading rack, known as LRMC-1, capacity: 36,000 gallons per hour.
- (rr) One (1) kerosene loading rack, constructed in 1997, known KLR capacity: 48,000 gallons of kerosene per hour.

- (ss) One (1) knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, rated at 8.2 million British thermal units per hour, exhausted through Stack TO-1, capacity: 12.69 tons of oxidized asphalt per hour.
- (tt) One (1) oxidized asphalt loading operation and rack, capacity: 24,000 gallons per hour.
- (uu) Two (2) existing permitted natural gas fired steam boilers, known as SB-901 and SB-903, with backup capability to burn a blend of No. 1 or 2 fuel oils and biofuel, exhausted through Stacks SB-901 and SB-903, rated at 36.0 and 8.37 million British thermal units per hour, constructed in 1970 and installed in 1997, respectively.
- (vv) One (1) natural gas fired steam boiler, known as SB-904, with backup capability to burn a blend of Nos. 1, 2 or 6 fuel oils and biofuel, exhausted through Stack SB-904, rated at 16.723 million British thermal units per hour (500 horsepower) to be installed.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Propane for liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.
- (c) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (d) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (e) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - (2) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (f) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.
- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (h) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kiloPascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF) or;
 - (2) having a vapor pressure equal to or less than 0.7 kiloPascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which

for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches soldering equipment, welding equipment.
- (j) Closed loop heating and cooling systems.
- (k) Any of the following structural steel and bridge fabrication activities:
 - Cutting 200,000 linear feet or less of one inch (1") plate or equivalent. Using 80 tons or less of welding consumables.
- (I) Rolling oil recovery systems.
- (m) Groundwater oil recovery wells.
- (n) Solvent recycling systems with batch capacity less than or equal to 100 gallons.
- (o) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.
- (p) Heat exchanger cleaning and repair.
- (q) Process vessel degassing and cleaning to prepare for internal repairs.
- (r) Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.
- (s) Paved and unpaved roads and parking lots with public access.
- (t) Asbestos abatement projects regulated by 326 IAC 14-10.
- (u) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (v) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (w) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (x) On-site fire and emergency response training approved by the department.
- (y) Emergency generators as follows:

Diesel generators not exceeding 1,600 horsepower.

- (z) Other emergency equipment as follows: Stationary fire pumps.
- (aa) Purge double block and bleed valves.

- (bb) Filter or coalescer media changeout.
- (cc) A laboratory as defined in 326 IAC 2-7-1(20)(C).
- (dd) Activities or categories of activities with individual HAP emissions not previously identified.

Any unit emitting greater than 1 pound per day but less than 5 pounds per day of 1 ton per year of a single HAP:

- (1) Tank storage or toluene, racing gasolines, aviation gasolines, and methyl-tert-butylether, where controlled by floating roof tanks and/or nitrogen blanket.
- (2) Tetraethyl lead cargo tank trailer under vacuum.
- (3) Gasoline loading rack current production HAP emissions are .15 TPY.
- (ee) Other activities or categories not previously identified:
 - (1) Loading rack losses for asphalt products, pump, valve, transfer points, flanges for asphalt products.
 - (2) All asphalt, wastewater, oil slop, kerosene, sodium hydroxide, asphalt oxidizer storage tanks, plant and vapor recovery flares.
 - (3) Asphalt (roofing) pouring and cooling into paper sleeves, forklift operations, laboratory operations including anti-knock engines, locomotive operations (transferring rail cars).

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Management (OAM) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permit Conditions

- (a) This permit shall be used as the primary document for determining compliance with applicable requirements established by previously issued permits.
- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, including any term or condition from a previously issued construction or operation permit, IDEM, OAM, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued.

SECTION B

GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2, and 326 IAC 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)]

This permit is issued for a fixed term of five (5) years from the effective date, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3.

B.4 Enforceability [326 IAC 2-8-6]

Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. The Permittee may include a claim of confidentiality in accordance with 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U. S. EPA, then the Permittee must furnish record directly to the U. S. EPA. The Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAM, may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Compliance with Permit Conditions [326 IAC 2-8-4(5)(A)] [326 IAC 2-8-4(5)(B)]

- (a) The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit, except those specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act and is grounds for:
 - (1) Enforcement action;
 - (2) Permit termination, revocation and reissuance, or modification; and
 - (3) Denial of a permit renewal application.
- (b) It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The certification shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than July 1 of each year to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

- (b) The annual compliance certification report required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, and on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;
 - (4) The methods used for determining compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAM, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.13 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall implement the PMPs as necessary to ensure that failure to implement a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.

(c) A copy of the PMPs shall be submitted to IDEM, OAM, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.14 Emergency Provisions [326 IAC 2-8-12]

- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
 - (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - Ouring the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAM, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Management, Compliance Section), or

Telephone No.: 317-233-5674 (ask for Compliance Section)

Facsimile No.: 317-233-5967

Failure to notify IDEM, OAM, by telephone or facsimile within four (4) daytime business hours after the beginning of the emergency, or after the emergency is discovered or reasonably should have been discovered, shall constitute a violation of 326 IAC 2-8 and any other applicable rules. [326 IAC 2-8-12(f)]

(5) For each emergency lasting one (1) hour or more, the Permittee submitted notice either in writing or facsimile, of the emergency to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions) for sources subject to this rule after the effective date of this rule. This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAM, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAM, by telephone or facsimile of an emergency lasting more than one (1) hour in compliance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to: Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation, except for the failure to perform the monitoring or record the information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless such failure has caused or contributed to a deviation.

A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.

- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.
- B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]
 - (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
 - (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM, determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
 - (c) Proceedings by IDEM, OAM, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM, and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, IN 46206-6015

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]
 - (1) A timely renewal application is one that is:
 - (A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (B) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
 - (2) If IDEM, OAM, upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.
- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9] If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAM, takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAM, any additional information identified as needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

Any such application should be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) only if a certification is required by the terms of the applicable rule.

(c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act:
 - (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
 - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAM, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:
 - (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]
 The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]

 The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.

B.20 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the applicable provisions of 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAM, U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) Sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) Utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements. [326 IAC 2-8-5(a)(4)]

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The application which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-11(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-8-4(6)] [326 IAC 2-8-16]

- (a) The Permittee shall pay annual fees to IDEM, OAM, within thirty (30) calendar days of receipt of a billing. If the Permittee does not receive a bill from IDEM, OAM the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-0425 (ask for OAM, Technical Support and Modeling Section), to determine the appropriate permit fee.

B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

- (a) The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if failure to commence construction of the emission unit within eighteen (18) months from the date of issuance of the permit, or if during the construction of work is suspended for a continuous period of one (1) year or more.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD));
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), emissions of particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accord-

ance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1. 326 IAC 4-1-3(a)(2)(A) and (B) are not federally enforceable.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2. 326 IAC 9-1-2 is not federally enforceable.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61.140]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management Asbestos Section, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) Procedures for Asbestos Emission Control
 The Permittee shall comply with the applicable emission control procedures in 326 IAC 1410-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-4 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) Indiana Accredited Asbestos Inspector The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement that the inspector be accredited is federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAM of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAM, within forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, or other approved methods as specified in this permit.

C.13 Temperature Gauge Specifications

Whenever a condition in this permit requires the measurement of temperature across any part of the unit or its control device, the thermometer employed shall have a scale such that the expected normal reading shall be no less than twenty percent (20%) of full scale and be accurate within plus or minus two percent (±2%) of full scale reading.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) If the ERP is disapproved by IDEM, OAM, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAM, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall submit:

- (a) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
- (b) As a part of the annual compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
- (c) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

C.16 Compliance Monitoring Plan - Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5]

(a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the compliance monitoring plan are:

- (1) This condition;
- (2) The Compliance Determination Requirements in Section D of this permit;
- (3) The Compliance Monitoring Requirements in Section D of this permit;
- (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM, upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) Reasonable response steps that may be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking reasonable response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to take reasonable response steps shall constitute a violation of the permit.
- (c) Upon investigation of a compliance monitoring excursion, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied: or
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required

monitoring.

- (f) If for reasons beyond its control, the Permittee fails to perform the monitoring and record keeping as required by Section D, then the reasons for this must be recorded.
 - (1) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent of the operating time in any quarter.
 - (2) Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the corrective actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline.
- (c) IDEM, OAM reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;

- (5) The results of such analyses; and
- (6) The operating conditions existing at the time of sampling or measurement.
- (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;
 - (4) Records of preventive maintenance.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAM, on or before the date it is due.
- (d) Unless otherwise specified in this permit, any quarterly report required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. The report(s) does(do) not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) All instances of deviations as described in Section B- Deviations from Permit Requirements Conditions must be clearly identified in such reports. The Emergency/Deviation Occurrence Report does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (f) Any corrective actions or response steps taken as a result of each deviation must be clearly identified in such reports.

(g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.

Stratospheric Ozone Protection

C.20 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Storage Tanks Not Subject to NSPS

- (b) Two (2) asphalt vertical fixed roof storage tanks, known as ST-009 and ST-010, constructed in 1895, capacity: 1,470,000 gallons, each.
- (c) One (1) heavy oils, kerosene, biofuel or asphalt storage tank, known as ST-021, constructed in 1975, capacity: 8,820 gallons.
- (d) One (1) wastewater vertical fixed roof storage tank, known as ST-023, constructed in 1956, capacity: 428,400 gallons.
- (e) Two (2) kerosene vertical fixed roof storage tanks, known as ST-024 and ST-025, constructed in 1968, capacity: 23,100 gallons, each.
- (f) One (1) slop oil vertical fixed roof storage tank, known as ST-028, constructed in 1956, capacity: 428,400 gallons.
- (g) Two (2) asphalt vertical fixed roof storage tanks, known as ST-029 and ST-030, constructed in 1956, capacity: 428,400 gallons, each.
- (h) Two (2) cutback asphalt vertical fixed roof storage tanks, known as ST-034 and ST-035, constructed in 1956, capacity: 215,880 gallons, each.
- (i) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-045, constructed in 1968, capacity: 428,484 gallons.
- (j) One (1) asphalt vertical fixed roof storage tank, known as ST-056, constructed in 1968, capacity: 852,894 gallons.
- (I) One (1) natural gas fired external asphalt tank (ST-030) heater, known as THE-930, constructed in 1956, rated at 7.15 million British thermal units per hour.
- (m) Five (5) internal natural gas fired, direct fired tube heaters, known as THI-943 (ST-043), THI-944 (ST-044), THI-956 (ST-056), THI-960 (ST-060) and THI-961 (ST-061) constructed in 1965, 1968, 1968, 1985 and 1985, respectively, rated at 9.0, 4.5, 3.0, 21.0 and 18.0 million British thermal units per hour.
- (n) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-007, constructed in 1956, capacity: 289,800 gallons.
- (o) One (1) heavy oils, kerosene or asphalt vertical fixed roof storage tank, known as ST-008, constructed in 1956, capacity: 289,800 gallons.
- (p) Three (3) wastewater vertical fixed roof storage tanks, known as ST-002, ST-003, and ST-006, constructed in 1956, capacity: 180,600 gallons, each.
- (q) One (1) oily wastewater and slop oil vertical fixed roof storage tank, known as ST-032, constructed in 1956, capacity: 42,451 gallons.
- (r) One (1) wastewater vertical fixed roof storage tank, known as ST-033, constructed in 1956, capacity: 85,386 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: - Storage Tanks Not Subject to NSPS - Continued

- (s) Three (3) sodium hydroxide storage tanks, known as ST-036, ST-037 and ST-038, constructed in 1965, capacity: 20,118 gallons, each.
- (t) One (1) asphalt vertical fixed roof storage tank, known as ST-043, constructed in 1965, capacity: 2,392,068 gallons.
- (u) One (1) asphalt vertical fixed roof storage tank, known as ST-044, constructed in 1968, capacity: 1,105,188 gallons.
- (v) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-046, constructed in 1960, capacity: 427,644 gallons.
- (w) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-047, constructed in 1960, capacity: 428,568 gallons.
- (x) One (1) waste water vertical fixed roof storage tank, known as ST-048, constructed in 1956, capacity: 110,292 gallons.
- (y) One (1) oily wastewater and slop oil vertical fixed roof storage tank, known as ST-49, capacity: 110,171 gallons.
- (z) One (1) crude oil, heavy oils, or kerosene interface vertical fixed roof storage tank, known as ST-051, constructed in 1960, capacity: 5,000 gallons.
- (aa) One (1) heavy oils, or kerosene vertical fixed roof storage tank, known as ST-052, constructed in 1973, capacity: 6,006 gallons.
- (bb) One (1) cutback asphalt vertical fixed roof storage tank, known as ST-053, constructed in 1956, capacity: 118,692 gallons.
- (cc) One (1) kerosene vertical fixed roof storage tank, known as ST-054, constructed in 1968, capacity: 120,078 gallons.
- (dd) One (1) asphalt vertical fixed roof storage tank, known as ST-055, constructed in 1968, capacity: 1,520,148 gallons.
- (ee) One (1) slop oil vertical fixed roof storage tank, known as ST-057, constructed in 1956, capacity: 85,386 gallons.
- (ff) One (1) heavy oils, kerosene or asphalt vertical fixed roof storage tank, known as ST-058, constructed in 1973, capacity: 6,015 gallons.
- (gg) One (1) oily wastewater and slop oil vertical fixed roof storage tank, known as ST-059, capacity: 37,983 gallons.
- (pp) One (1) asphalt cement loading rack, known as LRA-1, capacity: 54,000 gallons per hour.
- (qq) One (1) MC cutback asphalt loading rack, known as LRMC-1, capacity: 36,000 gallons per hour.
- (rr) One (1) kerosene loading rack, constructed in 1997, known KLR capacity: 48,000 gallons of kerosene per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

There are no conditions for the storage tanks, loading rack and tube heaters listed in Section D.1.

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: - Storage Tanks Subject to NSPS

- (hh) One (1) asphalt vertical fixed roof storage tank, known as ST-060, constructed in 1985, capacity: 2,341,920 gallons.
- (ii) One (1) asphalt vertical fixed roof storage tank, known as ST-061, constructed in 1985, capacity: 5,019,042 gallons.
- (jj) Four (4) heavy oils, kerosene or asphalt vertical fixed roof storage tanks, known as ST-085, ST-086, ST-087 and ST-088, constructed in 1989, capacity: 30,000 gallons, each.
- (kk) Two (2) slop oil vertical fixed roof storage tanks, known as ST-089 and ST-090, constructed in 1991, capacity: 30,000 gallons, each.
- (II) Two (2) heavy oils, kerosene or asphalt vertical fixed roof storage tanks, known as ST-091 and ST-092, constructed in 1991, capacity: 30,000 gallons, each.
- (mm) One (1) heavy oils, kerosene, or asphalt vertical fixed roof storage tank, known as ST-093, constructed in 1991, capacity: 30,000 gallons.
- (nn) Two (2) heavy oils, kerosene or asphalt vertical fixed roof storage tanks, known as ST-094 and ST-095, constructed in 1994, capacity: 30,000 gallons, each.
- (oo) One (1) asphalt anti-stripping additive vertical fixed roof storage tank, known as ST-096, capacity: 13,000 gallons.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-7-5(1)]

D.2.1 Standards of Performance for Volatile Organic Liquid Storage Vessels [326 IAC 12] [40 CFR 60.116b]

The storage tanks, ST-060, ST-061, ST-085 - ST-096 shall comply with the New Source Performance Standards (NSPS), 326 IAC 12 (40 CFR Part 60.116b, Subpart Kb). 40 CFR Part 60.116b paragraphs (a) and (b) require the Permittee to maintain accessible records showing the dimension of each storage vessel and an analysis showing the capacity of the storage vessel. Records shall be kept for the life of the storage tanks.

Record Keeping and Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-19]

D.2.2 Standards of Performance for Volatile Organic Liquid Storage Vessels [326 IAC 12] [40 CFR 60.116b]

The Permittee shall maintain accessible records showing the dimension of the storage tanks ST-060, ST-061, ST-085 - ST-096 and an analysis showing the capacity of the storage vessels. Records shall be kept for the life of the storage tanks. A copy of 40 CFR Part 60, Subpart Kb, is attached.

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: - Knock-out Tank and Loading Rack Operation

- (ss) One (1) knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, rated at 8.2 million British thermal units per hour, exhausted through Stack TO-1, capacity: 12.69 tons of oxidized asphalt per hour.
- (tt) One (1) oxidized asphalt loading operation and rack, capacity: 24,000 gallons per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.3.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

- D.3.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.
- D.3.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.4 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the asphalt oxidizing operations shall not exceed 22.5 pounds per hour when operating at a process weight rate of 12.69 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.3.5 PM₁₀ [326 IAC 2-8]

- (a) Pursuant to 326 IAC 2-8, the PM_{10} emissions from the knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, shall not exceed 19.6 pounds per hour. This condition limits the potential to emit PM_{10} to 86.1 tons per year.
- (b) When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to maintain a minimum ninety-four and two tenths percent (94.2%) overall control efficiency (capture and destruction) of the PM₁₀.

D.3.6 VOC [326 IAC 2-8]

- (a) Pursuant to 326 IAC 2-8, the VOC emissions from the knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, shall not exceed 8.24 pounds per hour. This condition limits the potential to emit VOC to 36.1 tons per year.
- (b) When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to maintain a minimum sixty-five percent (65.0%) overall control efficiency (capture and destruction) of the VOC.

D.3.7 CO [326 IAC 2-8]

- (a) Pursuant to 326 IAC 2-8, the CO emissions from the knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, shall not exceed 11.2 pounds per hour. This condition limits the potential to emit CO to 48.9 tons per year.
- (b) When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to maintain a minimum ninety percent (90%) overall control efficiency (capture and destruction) of the CO.

D.3.8 Thermal Oxidizer Operation

The thermal oxidizer, TO-1, controlling the emissions from the knock-out tank, KO-1, shall operate at all times that the asphalt oxidizing operations are in progress. When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to comply with the pound per hour limits stated in Conditions D.3.5, D.3.6 and D.3.7.

D.3.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for knock-out tank, KO-1, and its control device, TO-1.

Compliance Determination Requirements

D.3.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

(a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM₁₀ testing of the knock-out tank and thermal oxidizer utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM₁₀, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensible PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.

(b) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform VOC and CO testing of the thermal oxidizer exhausting through Stack TO-1 to determine the capture and destruction efficiencies for overall VOC and CO control utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.11 Monitoring

- (a) Daily records of the thermal oxidizer operating temperature shall be observed on each day that the knock-out tank, KO-1, is operated. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.3.12 Visible Emissions Notations

- (a) Visible emission notations of the thermal oxidizer stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.13 Record Keeping Requirements

- (a) To document compliance with Condition D.3.9, the Permittee shall maintain daily records of the thermal oxidizer operating temperature whenever the knock-out tank is in operation.
- (b) To document compliance with Condition D.3.12, the Permittee shall maintain records of daily visible emission notations of the thermal oxidizer stack exhaust once per shift.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Steam Boilers

- (uu) Two (2) existing permitted natural gas fired steam boilers, known as SB-901 and SB-903, with backup capability to burn a blend of No. 1 or 2 fuel oils and biofuel, exhausted through Stacks SB-901 and SB-903, rated at 36.0 and 8.37 million British thermal units per hour, constructed in 1970 and installed in 1997, respectively.
- (vv) One (1) natural gas fired steam boiler, known as SB-904, with backup capability to burn a blend of Nos. 1, 2 or 6 fuel oils and biofuel, exhausted through Stack SB-904, rated at 16.723 million British thermal units per hour (500 horsepower) to be installed.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.4.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

- D.4.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.
- D.4.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

- D.4.4 Particulate Matter Limitation (PM) [326 IAC 6-2]
 - (a) Pursuant to 326 IAC 6-2-3 (d)(Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from steam boiler, SB-901, used for indirect heating purposes which was existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.
 - (b) Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1 (c)), particulate emissions from steam boilers, SB-903 and SB-904, used for indirect heating purposes shall not exceed 0.407 and 0.374 pounds of particulate matter per million British thermal units heat input, respectively.

D.4.5 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 12-1]

For steam boiler, SB-904, pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units),:

- (a) No. 1 or No. 2 Fuel Oil or Biofuel
 - (1) The SO₂ emissions from the sixteen and seven hundred and twenty-three thousandths (16.723) million British thermal units per hour boiler shall not exceed five tenths (0.5) pounds per million British thermal units heat input;

or

- (2) The sulfur content of the fuel shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]
- (b) No. 6 Fuel Oil

The SO₂ emissions from the sixteen and seven hundred and twenty-three thousandths (16.723) million British thermal units per hour boiler shall not exceed one and six-tenths (1.6) pounds per million British thermal units heat input.

(c) Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.

D.4.6 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]

For steam boiler, SB-901, pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the thirty-six (36.0) million British thermal units per hour boiler on No. 1, No. 2 or biofuel shall not exceed five tenths (0.5) pounds per million British thermal units heat input.

D.4.7 Sulfur Dioxide (SO₂) [326 IAC 2-8]

- (a) The total input of equivalent No. 1 or No. 2 fuel oil to steam boiler, SB-901, shall be limited to 1,151,627 gallons per twelve (12) consecutive month period. This fuel limit is equivalent to 40.9 tons per year of SO₂.
- (b) For purposes of determining compliance based on SO₂ emissions each gallon of biofuel shall be equivalent to 0.360 gallons of No. 1 or No. 2 fuel oil.
- (c) For purposes of determining compliance based on SO₂ emissions each million cubic feet of natural gas shall be equivalent to 8.45 gallons of No. 1 or No. 2 fuel oil.

D.4.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for SB-901 and SB-904 and any control devices.

Compliance Determination Requirements

D.4.9 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance for steam boilers, SB-901 and SB-904 utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

D.4.10 Sulfur Dioxide Emissions and Sulfur Content

Compliance for steam boiler, SB-903, shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or
- (b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the thirteen (13) MMBtu per hour heater, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.4.11 Visible Emissions Notations

- (a) Visible emission notations of the SB-901, SB-903 and SB-904 stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere burning Nos. 1, 2, 6 fuel oil or biofuel. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.

- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.12 Record Keeping Requirements

- (a) To document compliance with Conditions D.4.5 and D.4.6, the Permittee shall maintain records for steam boilers, SB-901 and SB-904, in accordance with (1) through (6) below. Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions:
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; the natural gas fired boiler certification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.4.9, the Permittee shall maintain records of daily visible emission notations of the SB-901, SB-903 and SB-904 stack exhausts when burning Nos. 1, 2, 6 fuel oil or biofuel.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

D.4.13 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.7 when No. 1, No.2 or No.6 fuel oil, biofuel or natural gas was combusted, and the natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.5

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Insignificant Activities

- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches soldering equipment, welding equipment.
- (k) Any of the following structural steel and bridge fabrication activities:
 - Cutting 200,000 linear feet or less of one inch (1") plate or equivalent.
 - Using 80 tons or less of welding consumables.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.5.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), the owner or operator shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the operation requirements;
- (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.5.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

- (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));
- (B) The solvent is agitated; or
- (C) The solvent is heated.
- (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
 - Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.5.3 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the brazing equipment, cutting torches soldering equipment, welding equipment, structural steel and bridge fabrication activities shall not exceed allowable PM emission rate based on the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 4.10 P^{0.67}$$
, where $E =$ rate of emission in pounds per hour; and $P =$ process weight rate in tons per hour

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$$E = 55.0 P^{0.11} - 40$$
, where, $E =$ rate of emission in pounds per hour; and $P =$ process weight rate in tons per hour

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Laketon Refining Corporation

Source Address: 2784 West Lukens Lake Road, Laketon, Indiana 46943 Mailing Address: PO Box 68123, Indianapolis, Indiana 46268-0123

FESOP No.: F 169-7939-00006

		all be included when submitting monitoring, testing reports/result or other documents as required by this permit.	S
	Please check what do	cument is being certified:	
9	Annual Compliance C	ertification Letter	
9	Test Result (specify)		
9	Report (specify)		
9	Notification (specify)		
9	Affidavit (specify)		
9	Other (specify)		
info	ormation in the docume	formation and belief formed after reasonable inquiry, the statement nt are true, accurate, and complete.	s and
Sig	ınature:		
Pri	nted Name:		
Titl	e/Position:		
Da	te:		

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT

COMPLIANCE DATA SECTION P.O. Box 6015 100 North Senate Avenue Indianapolis, Indiana 46206-6015

Phone: 317-233-5674 Fax: 317-233-5967

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) EMERGENCY/DEVIATION OCCURRENCE REPORT

Source Name: Laketon Refining Corporation

Source Address: 2784 West Lukens Lake Road, Laketon, Indiana 46943 Mailing Address: PO Box 68123, Indianapolis, Indiana 46268-0123

FESOP No.: F 169-7939-00006

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2

9 1. This is an emergency as defined in 326 IAC 2-7-1(12)
The Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

9 2. This is a deviation, reportable per 326 IAC 2-8-4(3)(C)
The Permittee must submit notice in writing within ten (10) calendar days

If any of the following are not applicable, mark N/A Facility/Equipment/Operation:

Facility/Equipment/Operation:	
Control Equipment:	
Permit Condition or Operation Limitation in Permit:	
Description of the Emergency/Deviation:	
Describe the cause of the Emergency/Deviation:	

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency/Deviation started:
Date/Time Emergency/Deviation was corrected:
Was the facility being properly operated at the time of the emergency/deviation? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency/deviation:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:
Form Completed by:
Title / Position:
Date:
Phone:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Laketon Refining Corporation

Source Address: 2784 West Lukens Lake Road, Laketon, Indiana 46943 Mailing Address: PO Box 68123, Indianapolis, Indiana 46268-0123

FESOP No.: F 169-7939-00006

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.						
Report period Beginning: Ending:						
Boiler Affected	Alternate Fuel	Days burning alterna From	<u>tte fuel</u> <u>To</u>			
I certify that, based on inf information in the documen			uiry, the statements and			
Signature:						
Printed Name:						
Title/Position:						
Date:						

A certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) is not required for this report.

Date: Phone:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

	FES	OP Quarterly Report			
Source Name: Source Address: Mailing Address: FESOP No.: Facility: Parameter: Limit:	Laketon Refining Corporation 2784 West Lukens Lake Road, Laketon, Indiana 46943 PO Box 68123, Indianapolis, Indiana 46268-0123 F 169-7939-00006 SB-901 No. 1. or No. 2 equivalent fuel oil 1,151,627 gallons per twelve (12) consecutive month period Each gallon of biofuel is equivalent to 0.360 gallons of No. 1 or No. 2 fuel oil Each million cubic feet of natural gas is equivalent to 8.45 gallons of No. 1 or No. 2 fuel oil				
	YEAI	₹:			
Month	Number Gallons of Nos. 1 or 2 Fuel Oil or Equivalent Used	Number Gallons of Nos. 1 or 2 Fuel Oil or Equivalent Used	Number Gallons of Nos. 1 or 2 Fuel Oil or Equivalent Used		
	This Month	Previous 11 Months	12 Month Total		
9	No deviation occurre	ed in this quarter.			
9 Deviation/s occurred in this quarter. Deviation has been reported on:					
5	Submitted by:				
7					
	Signature:				

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) QUARTERLY COMPLIANCE MONITORING REPORT

Source Name: Source Address Mailing Address FESOP No.:	ress: 2784 West Lukens Lake Road, Laketon, Indiana 46943 ress: PO Box 68123, Indianapolis, Indiana 46268-0123					
	Months: to	O Year:				
in this permit. The compliance most pages may be Deviation Occur.	This report is an affirmation that the source has met all the compliance monitoring requirements stated in this permit. This report shall be submitted quarterly based on a calendar year. Any deviation from the compliance monitoring requirements and the date(s) of each deviation must be reported. Additional pages may be attached if necessary. This form can be supplemented by attaching the Emergency/ Deviation Occurrence Report. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".					
9 NO DEVIATI	ONS OCCURRED THIS RE	EPORTING PERIOD.				
9 THE FOLLO	WING DEVIATIONS OCCU	RRED THIS REPORTING PERI	OD.			
	e Monitoring Requirement ermit Condition D.1.3)	Number of Deviations	Date of each Deviation			
	Form Completed By: Title/Position: Date: Phone:					

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Management

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP)

Source Background And Description

Source Name: Laketon Refining Corporation

Source Location: 2784 West Lukens Lake Road, Laketon, Indiana 46943

County: Wabash SIC Code: 2951

Operation Permit No.: F 169-7939-00006
Permit Reviewer: Mark L. Kramer

The Office of Air Management (OAM) has reviewed a Federally Enforceable State Operating Permit (FESOP) application from Laketon Refining Corporation relating to the operation of an asphalt liquid binder manufacturing source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

- (a) One (1) steam boiler, known as SB-901, natural gas, constructed in 1970, exhausted through SB-901, rated at 36.0 million British thermal units per hour.
- (b) Two (2) asphalt vertical fixed roof storage tanks, known as ST-009 and ST-010, constructed in 1895, capacity: 1,470,000 gallons, each.
- (c) One (1) heavy oils, kerosene, biofuel or asphalt storage tank, known as ST-021, constructed in 1975, capacity: 8,820 gallons.
- (d) One (1) wastewater vertical fixed roof storage tank, known as ST-023, constructed in 1956, capacity: 428,400 gallons.
- (e) Two (2) kerosene vertical fixed roof storage tanks, known as ST-024 and ST-025, constructed in 1968, capacity: 23,100 gallons, each.
- (f) One (1) slop oil vertical fixed roof storage tank, known as ST-028, constructed in 1956, capacity: 428,400 gallons.
- (g) Two (2) asphalt vertical fixed roof storage tanks, known as ST-029 and ST-030, constructed in 1956, capacity: 428,400 gallons, each.
- (h) Two (2) cutback asphalt vertical fixed roof storage tanks, known as ST-034 and ST-035, constructed in 1956, capacity: 215,880 gallons, each.

(i) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-045, constructed in 1968, capacity: 428,484 gallons.

(j) One (1) asphalt vertical fixed roof storage tank, known as ST-056, constructed in 1968, capacity: 852,894 gallons.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted facilities/units:

- (k) One (1) natural gas-fired steam boiler, known as SB-903, with No.1 or No.2 oil as a backup fuel, installed in 1997, exhausted through Stack SB-903, rated at 8.37 million British thermal units per hour.
- (I) One (1) natural gas fired external asphalt tank (ST-030) heater, known as THE-930, constructed in 1956, rated at 7.15 million British thermal units per hour.
- (m) Five (5) internal natural gas fired, direct fired tube heaters, known as THI-943 (ST-043), THI-944 (ST-044), THI-956 (ST-056), THI-960 (ST-060) and THI-961 (ST-061) constructed in 1965, 1968, 1968, 1985 and 1985, respectively, rated at 9.0, 4.5, 3.0, 21.0 and 18.0 million British thermal units per hour.
- (n) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-007, constructed in 1956, capacity: 289,800 gallons.
- (o) One (1) heavy oils, kerosene or asphalt vertical fixed roof storage tank, known as ST-008, constructed in 1956, capacity: 289,800 gallons.
- (p) Three (3) wastewater vertical fixed roof storage tanks, known as ST-002, ST-003, and ST-006, constructed in 1956, capacity: 180,600 gallons, each.
- (q) One (1) oily wastewater and slop oil vertical fixed roof storage tank, known as ST-032, constructed in 1956, capacity: 42,451 gallons.
- (r) One (1) wastewater vertical fixed roof storage tank, known as ST-033, constructed in 1956, capacity: 85,386 gallons.
- (s) Three (3) sodium hydroxide storage tanks, known as ST-036, ST-037 and ST-038, constructed in 1965, capacity: 20,118 gallons, each.
- (t) One (1) asphalt vertical fixed roof storage tank, known as ST-043, constructed in 1965, capacity: 2,392,068 gallons.
- (u) One (1) asphalt vertical fixed roof storage tank, known as ST-044, constructed in 1968, capacity: 1,105,188 gallons.
- (v) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-046, constructed in 1960, capacity: 427,644 gallons.
- (w) One (1) heavy oils, kerosene or asphalt internal floating roof storage tank, known as ST-047, constructed in 1960, capacity: 428,568 gallons.

- (x) One (1) waste water vertical fixed roof storage tank, known as ST-048, constructed in 1956, capacity: 110,292 gallons.
- (y) One (1) oily wastewater and slop oil vertical fixed roof storage tank, known as ST-49, capacity: 110,171 gallons.
- (z) One (1) crude oil, heavy oils, or kerosene interface vertical fixed roof storage tank, known as ST-051, constructed in 1960, capacity: 5,000 gallons.
- (aa) One (1) heavy oils, or kerosene vertical fixed roof storage tank, known as ST-052, constructed in 1973, capacity: 6,006 gallons.
- (bb) One (1) cutback asphalt vertical fixed roof storage tank, known as ST-053, constructed in 1956, capacity: 118,692 gallons.
- (cc) One (1) kerosene vertical fixed roof storage tank, known as ST-054, constructed in 1968, capacity: 120,078 gallons.
- (dd) One (1) asphalt vertical fixed roof storage tank, known as ST-055, constructed in 1968, capacity: 1,520,148 gallons.
- (ee) One (1) slop oil vertical fixed roof storage tank, known as ST-057, constructed in 1956, capacity: 85,386 gallons.
- (ff) One (1) heavy oils, kerosene or asphalt vertical fixed roof storage tank, known as ST-058, constructed in 1973, capacity: 6,015 gallons.
- (gg) One (1) oily wastewater and slop oil vertical fixed roof storage tank, known as ST-059, capacity: 37,983 gallons.
- (hh) One (1) asphalt vertical fixed roof storage tank, known as ST-060, constructed in 1985, capacity: 2,341,920 gallons.
- (ii) One (1) asphalt vertical fixed roof storage tank, known as ST-061, constructed in 1985, capacity: 5,019,042 gallons.
- (jj) Four (4) heavy oils, kerosene or asphalt vertical fixed roof storage tanks, known as ST-085, ST-086, ST-087 and ST-088, constructed in 1989, capacity: 30,000 gallons, each.
- (kk) Two (2) slop oil vertical fixed roof storage tanks, known as ST-089 and ST-090, constructed in 1991, capacity: 30,000 gallons, each.
- (II) Two (2) heavy oils, kerosene or asphalt vertical fixed roof storage tanks, known as ST-091 and ST-092, constructed in 1991, capacity: 30,000 gallons, each.
- (mm) One (1) heavy oils, kerosene, or asphalt vertical fixed roof storage tank, known as ST-093, constructed in 1991, capacity: 30,000 gallons.
- (nn) Two (2) heavy oils, kerosene or asphalt vertical fixed roof storage tanks, known as ST-094 and ST-095, constructed in 1994, capacity: 30,000 gallons, each.
- (oo) One (1) asphalt anti-stripping additive vertical fixed roof storage tank, known as ST-096, capacity: 13,000 gallons.

- (pp) One (1) asphalt cement loading rack, known as LRA-1, capacity: 54,000 gallons per hour.
- (qq) One (1) MC cutback asphalt loading rack, known as LRMC-1, capacity: 36,000 gallons per hour.
- (rr) One (1) kerosene loading rack, constructed in 1997, known KLR capacity: 48,000 gallons of kerosene per hour.

New Emission Units and Pollution Control Equipment Receiving Prior Approval

The application includes information relating to the prior approval for the construction and operation of the following equipment pursuant to 326 IAC 2-8-4(11):

- (ss) One (1) knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, rated at 8.2 million British thermal units per hour, exhausted through Stack TO-1, capacity: 12.69 tons of oxidized asphalt per hour.
- (tt) One (1) oxidized asphalt loading operation and rack, capacity: 24,000 gallons per hour.
- (uu) Two (2) existing natural gas fired steam boilers, known as SB-901 and SB-903, with new backup capability to burn a blend of No. 1 or 2 fuel oils and biofuel, exhausted through Stacks SB-901 and SB-903, rated at 36.0 and 8.37 million British thermal units per hour, constructed in 1970 and installed in 1997, respectively.
- (vv) One (1) natural gas fired steam boiler, known as SB-904, with backup capability to burn a blend of Nos. 1, 2 or 6 fuel oils and biofuel, exhausted through Stack SB-904, rated at 16.723 million British thermal units per hour (500 horsepower) to be installed.

Emission Units and Pollution Control Equipment Removed From Service and Not Included in the Proposed Permit

The source has submitted additional information that certain facilities have been removed since the application was received on December 16, 1996. These are a mixture of permitted and unpermitted facilities as follows:

- (a) The following permitted tanks were removed from service prior to March, 1999:
 - (1) Two (2) naphtha alkylate storage tanks, known as ST-080 and ST-082, constructed in 1970, capacity: 1,540,476 gallons, each.
 - One (1) naphtha alkylate internal floating roof storage tank, known as ST-083, constructed in 1978, capacity: 2,275,014 gallons.
 - One (1) naphtha alkylate storage tank, known as ST-084, constructed in 1978, capacity: 2,172,660 gallons.
 - (4) Three (3) asphalt oxidizer storage tanks, known as ST-402, ST-403 and ST-404, constructed in 1983, capacity: 54,012 gallons, each.
- (b) The following unpermitted facilities were removed from service prior to March, 1999:
 - (1) One (1) plant process flare, constructed in 1985, known as F-101, rated at 0.958 million British thermal units per hour.

Laketon Refining Corporation Laketon, Indiana

Permit Reviewer: MES

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- (2) A vapor recovery flare, constructed in 1997, known as F-102.
- (3) Two (2) tower reboiler heaters, known as H-702 and H-703, constructed in 1991, rated at 15.0 and 12.0 million British thermal units per hour, respectively.
- (4) One (1) asphalt storage tank, known as ST-042, constructed in 1965, capacity: 2,345,028 gallons.
- (5) One (1) naphtha alkylate storage tank, known as ST-081 constructed in 1970, capacity: 1,540,476 gallons.
- (c) The following permitted tank was destroyed or dismantled and removed prior to March, 1999:
 - One (1) naptha alkylate storage tank, known as ST-004, constructed in 1975, capacity: 2,183,790 gallons.
- (d) The following permitted facilities were taken out of service permanently and will be dismantled:
 - (1) One (1) steam boiler, known as SB-902, natural or refinery gas-fired with No.6 oil backup, constructed in 1974, rated at 118.0 million British thermal units per hour.
 - (2) One (1) storage tank, known as ST-001 currently has holes and does not hold liquid.
 - One (1) jet fuel storage tank, known as ST-005, capacity: 189,000 currently has holes and do not hold liquid.
- (e) The following unpermitted facilities were destroyed or dismantled and removed prior to March, 1999:
 - (1) Four (4) internal direct fire tube heaters, known as THI-942, THI-402, THI-403 and THI-404, constructed in 1965, 1983, 1983 and 1983, respectively, rated at 6.0, 0.75, 0.75, and 0.75 million British thermal units per hour.
 - (2) One (1) asphalt oxidizer storage tank, known as ST-401, constructed in 1983, capacity: 18,264 gallons.
- (f) The following unpermitted facilities are being cleaned and will be demolished during the fall of 1999:
 - Three (3) oily wastewater and slop oil storage tanks, known as ST-032, ST-049 and ST-059, constructed in 1956.
- (g) The following unpermitted facilities have been disconnected and are no longer in service and are for sale or will be dismantled, if not sold.
 - Two (2) tanks, known as ST-026 and ST-027 formerly part of the MEROX jet fuel treating system, capacity: 8,800 gallons each.
- (h) The steam boiler, SB-901 was originally permitted with No. 6 oil as a back-up fuel. This boiler will no longer use No. 6 fuel oil.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour.
- (b) Propane for liquefied petroleum gas, or butane-fired combustion sources with heat input equal to or less than six million (6,000,000) British thermal units per hour.
- (c) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) British thermal units per hour and firing fuel containing less than five-tenths (0.5) percent sulfur by weight.
- (d) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (e) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - (2) Vessels storing lubricating oil, hydraulic oils, machining oils, and machining fluids.
- (f) Application of oils, greases lubricants or other nonvolatile materials applied as temporary protective coatings.
- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6.
- (h) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kilopascals; 15 millimeters of mercury; or 0.3 pounds per square inch measured at 38EC (100EF) or;
 - (2) having a vapor pressure equal to or less than 0.7 kilopascals; 5 millimeters of mercury; or 0.1 pounds per square inch measured at 20EC (68EF); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches soldering equipment, welding equipment.
- (j) Closed loop heating and cooling systems.
- (k) Any of the following structural steel and bridge fabrication activities:
 - Cutting 200,000 linear feet or less of one inch (1") plate or equivalent. Using 80 tons or less of welding consumables.
- (I) Rolling oil recovery systems.

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- (m) Groundwater oil recovery wells.
- (n) Solvent recycling systems with batch capacity less than or equal to 100 gallons.
- (o) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1 percent by volume.
- (p) Heat exchanger cleaning and repair.
- (q) Process vessel degassing and cleaning to prepare for internal repairs.
- Stockpiled soils from soil remediation activities that are covered and waiting transport for disposal.
- (s) Paved and unpaved roads and parking lots with public access.
- (t) Asbestos abatement projects regulated by 326 IAC 14-10.
- (u) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.
- (v) Equipment used to collect any material that might be released during a malfunction, process upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment.
- (w) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (x) On-site fire and emergency response training approved by the department.
- (y) Emergency generators as follows:

Diesel generators not exceeding 1,600 horsepower.

- (z) Other emergency equipment as follows: Stationary fire pumps.
- (aa) Purge double block and bleed valves.
- (bb) Filter or coalescer media changeout.
- (cc) A laboratory as defined in 326 IAC 2-7-1(20)(C).
- (dd) Activities or categories of activities with individual HAP emissions not previously identified.

Any unit emitting greater than 1 pound per day but less than 5 pounds per day of 1 ton per year of a single HAP:

- (1) Tank storage or toluene, racing gasolines, aviation gasolines, and methyl-tert-butylether, where controlled by floating roof tanks and/or nitrogen blanket.
- (2) Tetraethyl lead cargo tank trailer under vacuum.

- (3) Gasoline loading rack current production HAP emissions are .15 TPY.
- (ee) Other activities or categories not previously identified:
 - (1) Loading rack losses for asphalt products, pump, valve, transfer points, flanges for asphalt products.
 - (2) All asphalt, wastewater, oil slop, kerosene, sodium hydroxide, asphalt oxidizer storage tanks, plant and vapor recovery flares.
 - (3) Asphalt (roofing) pouring and cooling into paper sleeves, forklift operations, laboratory operations including anti-knock engines, locomotive operations (transferring rail cars).

Existing Approvals

The source has been operating under previous approvals including, but not limited to, the following: list permits, registrations, modifications, exemptions, etc.

- (a) Registered Operation Status Letter, issued September 10, 1981,
- (b) OP 85-06-86-0143, issued on September 27, 1982,
- (c) OP 85-06-86-0149, issued on September 27, 1982,
- (d) OP 85-06-86-0150, issued on September 27, 1982,
- (e) Construction Permit PC (85) 1529, Issued January 26, 1983,
- (f) OP 85-06-86-0153, issued on September 16, 1983,
- (g) Exempt Construction and Operation Status Letter, issued August 3, 1984,
- (h) A Registered Construction and Operation Status Letter, Issued January 23, 1985,
- (i) A Registered Construction and Operation Status Letter, Issued February 25, 198,
- (j) Exempt Construction and Operation Status Letter, issued January 20, 1988,
- (k) A Registered Construction and Operation Status Letter, Issued November 26, 1986.

All conditions from previous approvals were incorporated into this FESOP permit except the following:

PC (85) 1529, issued on January 26, 1983 and OP 85-06-86-0153, issued September 16, 1983

All Conditions

Reason not incorporated: Equipment covered under this permit has been removed from the source.

Enforcement Issue

- (a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment Requiring ENSR*.
- (b) IDEM is aware that the source was not issued a FESOP by December 14, 1996 nor did they submit a Part 70 application by that date.
- (c) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the construction permit rules.

Recommendation

The staff recommends to the Commissioner that the FESOP permit be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An administratively complete FESOP permit application for the purposes of this review was received on December 16, 1996. Additional information was received on July 31, 1997, December 9, 1997, September 25, 1998 and May 24, 1999.

Emission Calculations

A summary of all emissions before and after control for the source are shown on page 1 of 8 of Appendix A. The emissions from combustion of natural gas, fuel oil Nos 1, 2, or 6 and biofuel from the steam boilers, SB-901, SB-903 and SB-904 are provided on pages 2 - 8 of 8 of Appendix A. Appendix B presents the calculations for each of the storage tanks submitted by the applicant that have been verified and found to be accurate and correct. These calculations are provided in Appendix B of this document in pages 1 through 148 are the Tanks 3.0 Program printout and page 149 summarizes the standing and working losses for all storage tanks (ST-02, 03, 06 - 10, 23 - 30, 32 - 35, 43 - 49, 51-61, and 85 - 96). Pages 1 - 4 of Appendix C present the emission calculations for the loading racks and asphalt oxidizing operations.

The potential VOC emissions from the wastewater treatment operations are calculated as follows:

The wastewater treatment operations consist of primary and secondary oil/water separators and final treatment of biological aerobic digestion. The wastewater flow rate is 30 gallons per minute all year round. The VOC emission factor of five (5) pounds per 1,000 gallons of wastewater processed. Therefore, the potential VOC emissions are:

30 gal/min x 60 min/hr x 8,760 hr/yr x 5 lbs/1,000 gal = 78,840 lbs or 39.4 tons/yr

Potential Emissions

Pursuant to 326 IAC 1-2-55, Potential Emissions are defined as "emissions of any one (1) pollutant which would be emitted from a facility, if that facility were operated without the use of pollution control equipment unless such control equipment is necessary for the facility to produce its normal product or is integral to the normal operation of the facility."

Pollutant	Potential Emissions (tons/year)
PM	1,491
PM ₁₀	1,493
SO ₂	137
VOC	157
CO	538
NO _x	87.7

Note: For the purpose of determining Title V applicability for particulates, PM_{10} , not PM, is the regulated pollutant in consideration.

HAPs	Potential Emissions (tons/year)
Benzene	0.00065
Dichlorobenzene	0.00037
Formaldehyde	0.023
Hexane	0.559
Toluene	0.001
Lead	0.002
Cadmium	0.0008
Chromium	0.008
Manganese	0.002
Nickel	0.0008
Arsenic	0.001
Beryllium	0.0008
Mercury	0.0008
Selenium	0.004
TOTAL	0.604

(a) The potential emissions (as defined in 326 IAC 1-2-55) of PM_{10} , SO_2 , CO, and VOC are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

(b) Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and but since there were applicable New Source Performance Standards (NSPS Subpart K and Ka) that were in effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

(c) This source, otherwise required to obtain a Title V permit, has agreed to accept a permit with federally enforceable limits that restrict its PTE to below the Title V emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP), pursuant to 326 IAC 2-8.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 1996 OAM emission data and HAPs for 1995 from Form GSD-08 of the application

Pollutant	Actual Emissions (tons/year)
PM	0.309
PM ₁₀	0.309
SO ₂	0.062
VOC	37.1
СО	2.61
NO _X	9.72
Toluene	1.99
Tetra Ethyl Lead	0.003
Methyl Tert Butyl Ether	0.012

Limited Potential to Emit

The table below summarizes the total potential to emit, reflecting all limits, of the significant emission units.

		Limited Potential to Emit (tons/year)					
Process/facility	PM	PM ₁₀	SO ₂	VOC	СО	NO _x	HAPS
SB-901 SB-903 SB-904	2.42 0.564 3.82	2.42 0.564 3.82	40.9* 18.6 38.3	0.867 0.202 0.552	13.2 3.08 6.15	24.2 5.64 26.9	negligible negligible negligible

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	СО	NO _x	HAPS
THE-930, TO-1, THI- 943, TH1-944, THI- 956, THI-960 & THI- 961	0.590	2.36	0.186	1.71	26.1	31.0	negligible
All Storage Tanks Standing & Working Losses	0.000	0.000	0.000	2.45	0.000	0.000	negligible
Four (4) Loading Racks	0.000	0.000	0.000	8.41	0.000	0.000	negligible
Four (4) Asphalt Oxidizing Tank Process Operations	14.8 (86.1)	14.8 (86.1)	0.000	1.03 (36.1)	4.89 (48.9)	0.000	negligible
Waste Water Treatment	0.000	0.000	0.000	39.4	0.000	0.000	negligible
Insignificant Activities	6	4	1	10	2	4	5
Total Emissions	28.2 (99.5)	28.0 (99.3)	99.0	64.6 (99.7)	55.4 (99.4)	91.7	5.00

The values in parentheses are the allowable PM_{10} (and equivalent PM) emissions with a minimum 94.2 percent control efficiency. The values in parentheses are the allowable VOC emissions with a minimum 65.0 percent control efficiency. The values in parentheses are the allowable CO emissions with a minimum 90.0 percent control efficiency. These minimum control efficiencies are necessary for the PM_{10} , VOC and CO emissions to comply with the requirements of 326 IAC 2-8. *The SO_2 emissions from SB-901 on the worst case No. 1 or No. 2 fuel oil will be limited to 1,151,627 gallons per year, equivalent to 40.9 tons per year. For purposes of this production limit each gallon of biofuel is equivalent to 0.360 gallons of 1 gallon of No.1 or No.2 fuel oil. Also, each million cubic feet of natural gas is equivalent to 8.45 gallons of No.1 or No.2 fuel oil.

County Attainment Status

The source is located in Wabash County.

Pollutant	Status
PM ₁₀	Attainment
SO ₂	Attainment
NO ₂	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

Volatile organic compounds (VOC) and oxides of nitrogen (NO_x) are precursors for the formation of ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the ozone standards. Wabash County has been designated as attainment or unclassifiable for ozone.

Federal Rule Applicability

(a) NSPS Subpart K, Ka or Kb

The following table lists each storage tank, its capacity and installation date. All storage tanks constructed before June 1, 1973 or with capacities of less than 40 cubic meters (10,567 gallons) are exempt from the requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.110, 110a and 110b) Subpart K, Ka and Kb.

Storage Tanks #	Capacity, Each Tank (gallons)	Construction Date	Subject to NSPS Subpart K (6/11/73 - 5/18/78) Subpart Ka (5/19/78 - 7/22/84) and Subpart Kb (7/23/84 to present) or it is Exempt
ST-002, ST-003 & ST-006	180,600	1956	Exempt
ST-007 & ST-008	289,800	1956	Exempt
ST-009 & ST-010	1,470,000	1895	Exempt
ST-021	8,820	1975	Exempt
ST-023	428,400	1956	Exempt
ST-024 & ST-025	23,100	1968	Exempt
ST-028, ST-029 & ST-030	428,400	1956	Exempt
ST-032	42,451	1956	Exempt
ST-033	85,386	1956	Exempt
ST-034 & ST-035	215,880	1956	Exempt
ST-036, ST-037 & ST-038	20,118	1965	Exempt
ST-043	2,392,068	1965	Exempt
ST-044	1,105,188	1968	Exempt
ST-045	428,484	1968	Exempt
ST-046	427,644	1960	Exempt
ST-047	428,568	1960	Exempt

Storage Tanks #	Capacity, Each Tank (gallons)	Construction Date	Subject to NSPS Subpart K (6/11/73 - 5/18/78) Subpart Ka (5/19/78 - 7/22/84) and Subpart Kb (7/23/84 to present) or it is Exempt
ST-048	110,292	1956	Exempt
ST-049	110,171	1956	Exempt
ST-051	5,000	1960	Exempt
ST-052	6,006	1973	Exempt
ST-053	118,692	1956	Exempt
ST-054	120,078	1968	Exempt
ST-055	1,520,148	1968	Exempt
ST-056	852,894	1968	Exempt
ST-057	85,386	1956	Exempt
ST-058	6,015	1973	Exempt
ST-059	37,983	1956	Exempt
ST-060	2,341,920	1985	Subpart Kb
ST-061	5,019,042	1985	Subpart Kb
ST-085, ST-086, ST-087 & ST-088	30,000	1989	Subpart Kb
ST-089 & ST-090	30,000	1991	Subpart Kb
ST-091 & ST-092	30,000	1991	Subpart Kb
ST-093	30,000	1991	Subpart Kb
ST-094 & ST-095	30,000	1994	Subpart Kb
ST-096	13,000	1999	Subpart Kb

- (1) Therefore, storage tanks, ST-060, ST-061, ST-085 ST-096 are subject to NSPS Subpart Kb. ST-060 and ST-061 constructed or reconstructed after July 23, 1984 have capacities greater than 151 m³, but are only subject to paragraphs (a) and (b) of 40 CFR 60.116b and 326 IAC 12, because these vessels, with a capacity greater than 151 m³, store asphalt which has a maximum true vapor pressure less than 3.5 kPa.
- (2) In addition, storage tanks, ST-085 ST-095, are subject to NSPS Subpart Kb. These storage tanks constructed or reconstructed after July 23, 1984 have capacities greater than 75 m³ and less than 151 m³, but are only subject to paragraphs

(a) and (b) of 40 CFR 60.116b and 326 IAC 12, because these vessels, with a capacity greater than 75 m³ and less than 151 m³, store materials which have maximum true vapor pressures less than 15.0 kPa.

(3) ST-096 has capacity greater than 40 m³, but less than 75 m³ and is also subject to NSPS Subpart Kb, but are only subject to paragraphs (a) and (b) of 40 CFR 60.116b and 326 IAC 12 that requires record keeping only.

A copy of NSPS Subpart Kb is attached.

(b) NSPS Subpart Dc

- (1) Boiler, SB-903, installed in 1997 and rated at 8.37 million British thermal units per hour, is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc) because its rating is less than ten (10) million British thermal units per hour.
- (2) Boiler, SB-901, installed in 1970 and rated at 36.0 million British thermal units per hour, is not subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc) because it was constructed prior to the applicability date of June 9, 1989. The addition of biofuel as an alternative operating scenario does not increase any air pollutant emissions and therefore, is not consider a modification.
- (3) Boiler, SB-904, to be installed and rated at 16.723 million British thermal units per hour, is subject to the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c, Subpart Dc).
- (c) The insignificant degreasing activity is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 40 CFR Part 63, Subpart T, (Halogenated Solvent Cleaning Machine NESHAP) because it uses a solvent which is not part of the applicability as specified in 40 CFR Part 63, Subpart T.
- (d) The knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, with a holding capacity of less than 10,000 gallons is not subject to NSPS Subpart Kb since the material being contained in the tank are not liquids, but rather gases.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration, (PSD))

After controls, the emissions from this source of all criteria pollutants are less than 250 tons per year. Therefore, the requirement of this rule are not applicable.

326 IAC 2-6 (Emission Reporting)

This source is located in Wabash County and will be limited to less than one hundred (100) tons per year of PM_{10} , SO_2 , CO, VOC and NO_x . Therefore, 326 IAC 2-6 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM_{10} , SO_2 , VOC, CO and NO_X shall be limited to less than one hundred (100) tons per year. In addition, the amount of a single HAP shall be limited to less than

ten (10) tons per year and the combination of all HAPS shall be limited to less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 2-7, do not apply.

326 IAC 5-1 (Opacity)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

State Rule Applicability - Individual Facilities

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

(a) Pursuant to 326 IAC 6-2-3 (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate matter emissions from the steam boiler, SB-901, rated at 36.0 million British thermal units per hour burning natural gas, No. 1 or No. 2 oil or biofuel, was existing and in operation before September 21, 1983, shall be limited by the following equation with the parameters specified by 326 IAC 6-2-3(b):

Pt =
$$\frac{C * a * h}{76.5 * Q^{0.75} * N^{0.25}}$$

Pt = lbs of PM emitted per MMBtu heat input

C = maximum ground level concentration (default = 50 ug/m³)

a = plume rise factor (default = 0.67 for Q less than 1,000 MMBtu/hr)

h = stack height in feet (50 feet)

Q = total source maximum operating capacity

N = number of stacks in fuel burning operation

Pt =
$$\frac{50 \text{ ug/m}^3 * 0.67 * 50}{76.5 * 36^{0.75} * 1^{0.25}}$$
 = 1.49 pounds of particulate matter emitted per MMBtu heat input

(b) Since the formula limit (1.49 pounds per million British thermal units heat input) exceeds the 0.8 pounds of particulate matter per million British thermal units heat input, then 326 IAC 6-3-2(d) is applicable:

Pursuant to 326 IAC 6-2-3 (d) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from all facilities used for indirect heating purposes which were existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.

(1) On natural gas, the PM emissions from SB-901 rated at 36 million British thermal units per hour are 0.068 pounds per hour, equivalent to 0.002 pounds per million British thermal units heat input. Therefore steam boiler, SB-901, complies when burning natural gas.

- (2) On No. 1 or No. 2 fuel oil, the PM emissions from SB-901 rated at 36 million British thermal units per hour are 0.514 pounds per hour, equivalent to 0.014 pounds per million British thermal units heat input. Therefore steam boiler, SB-901, complies when burning either No. 1 or No. 2 fuel oil.
- (3) On biofuel, the PM emissions from SB-901 rated at 36 million British thermal units per hour are 0.553 pounds per hour, equivalent to 0.015 pounds per million British thermal units heat input. Therefore steam boiler, SB-901, complies when burning biofuel.
- (c) Pursuant to 326 IAC 6-2-4, (Emission limitations specified in 326 IAC 6-2-1(c)), particulate matter (PM) emissions from steam boilers, SB-903, constructed in 1997, and SB-904, to be constructed, rated at 8.37 and 16.723 million British thermal units per hour, burning natural gas, No. 1 or No. 2 oil or biofuel shall be limited to that determined by the following equation. Note that steam boiler SB-904 can also burn No. 6 fuel oil.

$$Pt = 1.09/Q^{0.26}$$

where, Q = the total source maximum operating capacity in million British thermal units per hour (36.0 + 8.37 = 44.37) for SB-903 and (36.0 + 8.37 + 16.723 = 61.093) for SB-904.

Pt = 1.09/(44.37 mmBtu/hr)^{0.26} = 0.407 pounds per million British thermal units for SB-903.

Pt = $1.09/(61.093 \text{ mmBtu/hr})^{0.26} = 0.374 \text{ pounds per million British thermal units for SB-904}$.

- (1) On natural gas, the PM emissions from steam boilers, SB-903 and SB-904 rated at 8.37 and 16.723 million British thermal units per hour are 0.016 and 0.032 pounds per hour, equivalent to 0.002 and 0.002 pounds per million British thermal units heat input. Therefore, steam boilers SB-903 and SB-904 comply when burning natural gas.
- (2) On No. 1 or No 2 fuel oil, the PM emissions from steam boilers, SB-903 and SB-904 rated at 8.37 and 16.723 million British thermal units per hour are 0.120 and 0.240 pounds per hour, equivalent to 0.014 and 0.014 pounds per million British thermal units heat input. Therefore, steam boilers SB-903 and SB-904 comply when burning No. 1 or No. 2 fuel oil.
- (3) On biofuel, the PM emissions from steam boilers, SB-903 and SB-904 rated at 8.37 and 16.723 million British thermal units per hour are 0.129 and 0.258 pounds per hour, equivalent to 0.015 and 0.015 pounds per million British thermal units heat input. Therefore, steam boilers SB-903 and SB-904 comply when burning biofuel.
- (4) On No. 6 oil, the PM emissions from steam boiler, SB-904, rated at 16.723 million British thermal units per hour are 0.872 pounds per hour, equivalent to 0.052 pounds per million British thermal units heat input. Therefore, steam boiler SB-904 complies when burning No. 6 fuel oil.

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326 IAC 6-3-2 (Process Operations)

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the asphalt oxidizing operations shall not exceed 22.5 pounds per hour when operating at a process weight rate of 12.69 tons per hour. The pounds per hour limitation was calculated with the following equation:

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Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour and P = process weight rate in tons per hour

The thermal oxidizer, TO-1 shall be in operation at all times the asphalt oxidizing processes are in operation, in order to comply with this limit. The PM emissions from asphalt oxidizing operations after controls are 3.38 pounds per hour which is less than the allowable PM emission rate of 22.5 pounds per hour. Therefore, the asphalt oxidizing operations are in compliance with this rule.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

Pursuant to 326 IAC 7-1.1-1 (Applicability), only those facilities with potential SO_2 emissions of twenty-five (25) tons per year or ten (10) pounds per hour, shall comply with SO_2 emission limitations specified in 326 IAC 7-1.1-2. SB-901 on No. 1 and No.2, SB-901 on biofuel, and SB-904 on No. 6 fuel oil have potential emissions of more than twenty-five (25) tons per year and are therefore subject to this rule. Pursuant to 326 IAC 7-1.1-2, SO_2 emissions shall not exceed 0.5 pounds per million British thermal units heat input for distillate oil, including bio fuel and 1.6 pounds per million British thermal units heat input for residual oil, No. 6 fuel oil.

- (a) On No. 1 or No 2 fuel oil, the SO₂ emissions from steam boiler, SB-901 and SB-904 rated at 36.0 and 16.723 million British thermal units per hour are 18.3 and 8.47 pounds per hour, equivalent to 0.5 and 0.5 pounds per million British thermal units heat input. Therefore, steam boilers SB-901 and SB-904 comply when burning No. 1 or No. 2 fuel oil.
- (b) On biofuel, the SO₂ emissions from steam boiler, SB-901 rated at 36.0 million British thermal units per hour are 7.08 pounds per hour, equivalent to 0.197 pounds per million British thermal units heat input. Therefore, steam boiler SB-901 complies when burning biofuel.
- (c) On No. 6 fuel oil, the SO₂ emissions from steam boiler, SB-904 rated at 16.723 million British thermal units per hour are 8.74 pounds per hour, equivalent to 0.5 pounds per million British thermal units heat input. Therefore, steam boiler SB-904 complies when burning No. 6 fuel oil.

326 IAC 8-1-6 (New facilities: general reduction requirements)

The thermal oxidizer controlling VOC emissions from the knock-out tank (KO-1) with a control efficiency of 99 percent has been determined to be the Best Available Control Technology (BACT) for the asphalt oxidizing operations. This control device will be in operation at all times when the asphalt oxidizing processes are in progress.

326 IAC 8-4 (Petroleum Sources)

The source located in Wabash County is not subject to 326 IAC 8-4-2 through 326 IAC 8-4-5 and 326 IAC 8-4-7 through 326 IAC 8-4-9 because the source was constructed prior to January 1, 1980. The source is not subject 326 IAC 8-4-6 because it does currently store or dispense gasoline.

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326 IAC 8-6 (Organic solvent emission limitations)

Those storage tanks constructed between October 7, 1974 and January 1, 1980 are not subject to the requirements of 326 IAC 8-6 since these facilities do not have the potential to emit one hundred (100) tons or greater of VOC per year.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

Pursuant to 326 IAC 8-7-2, this rule does not apply to any of the storage tanks in Wabash County since the source is not located in Lake, Porter, Clark or Floyd Counties.

326 IAC 8-9 (Volatile Organic Liquid Vessels)

This rule does not apply to the proposed storage tank ST-096 to be constructed in Wabash County since it is not located in Lake, Porter, Clark or Floyd Counties.

326 IAC 8 (Volatile Organic Compound Rules)

There are no other 326 IAC 8 rules that apply.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAM, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

(a) The thermal oxidizer for the knock-out tank, KO-1, has applicable compliance monitoring conditions as specified below:

The Permittee shall record the exhaust temperature of the thermal oxidizer, at least once daily when KO-1 is in operation. Unless operated under conditions for which the Preventive Maintenance Plan specifies otherwise, the exhaust temperature shall be maintained at a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature range determined by the latest stack test to maintain at least 94.2 percent destruction of VOC and PM₁₀ captured. The Preventive Maintenance Plan for this unit shall contain troubleshooting contingency and corrective actions for when the temperature reading is outside of the specified temperature or range of temperatures for any one reading.

These monitoring conditions are necessary because the thermal oxidizer on KO-1 must operate properly to ensure compliance with 326 IAC 8-1-6, 326 IAC 2-8 and to avoid applicability of 326 IAC 2-2.

- (b) The compliance monitoring requirements applicable to the SB-901 and SB-904 when burning Nos. 1, 2 or 6 fuel oil or biofuel are as follows:
 - (1) Daily visible emission notations of the two (2) boiler stack exhausts SB-901 and SB-904 shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal.
 - (2) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
 - (3) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
 - (4) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
 - (5) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

These monitoring conditions are necessary because the steam boilers must operate properly to ensure compliance with 326 IAC 5-1 and 326 IAC 2-8.

Air Toxic Emissions

Indiana presently requests applicants to provide information on emissions of the 188 hazardous air pollutants (HAPs) set out in the Clean Air Act Amendments of 1990. These pollutants are either carcinogenic or otherwise considered toxic and are commonly used by industries. They are listed as air toxics on the Office of Air Management (OAM) FESOP Application Form GSD-08.

- (a) This source will emit levels of air toxics less than those which constitute a major source according to Section 112 of the 1990 Clean Air Act Amendments.
- (b) See attached calculations for detailed air toxic calculations on page 3 of 8 of Appendix A

Conclusion

The operation of this asphalt liquid binder manufacturing source shall be subject to the conditions of the attached proposed FESOP No. F 169-7939-00006.

Indiana Department of Environmental Management Office of Air Management

Addendum to the

Technical Support Document for Federally Enforceable State Operating Permit (FESOP)

Source Name: Laketon Refining Corporation

Source Location: 2784 West Lukens Lake Road, Laketon, Indiana 46943

County: Wabash

FESOP: F 169-7939-00006

SIC Code: 2951

Permit Reviewer: Mark L. Kramer

On August 26, 1999, the Office of Air Management (OAM) had a notice published in the Wabash Plain Dealer, Wabash, Indiana, stating that Laketon Refining Corporation had applied for a Federally Enforceable State Operating Permit (FESOP) to operate an asphalt liquid binder manufacturing source with control. The notice also stated that OAM proposed to issue a FESOP for this operation and provided information on how the public could review the proposed FESOP and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this FESOP should be issued as proposed.

On or about September 10 - 22, 1999, the following residents of Laketon and nearby North Manchester, submitted comments on the proposed FESOP. Their comments are as follows:

Comment 1:

From Cleo Moore: In regard to proposed approval Federal Enforceable State Operating Permit, we don't need more pollution, we need less.

Comment 2:

From Mary E. Ohmart: Please, above all things, do not approve of what the Laketon Refinery is planning in producing a new fuel that will cause excessive pollution! We have an elementary school within a <u>short</u> distance. Before the Refinery cleaned up and stopped the horrible odor that permeated our town, the odor permeated the inside of the school. I couldn't keep the windows at school open! Please don't let this happen again!

Comment 3:

From Arlot Florine Marshall: We feel like we have had enough pollution from the refinery. Sometimes we have to close our windows to get our breath. We sure don't want anymore.

Comment 4:

From Shirley Vergon: We do not need any more pollution in our town. We have had all we are going to take of this. What do you think of our water that we have to drink? It's got to stop! I have lived here all my life and it used to be a nice place, no more!

Comment 5:

From Evelyn Tricker: As a resident of Laketon, Indiana, I as well as several others in this area, would like to ask you not to approve the plan of the Laketon Refinery that will cause more air pollution.

This refinery is approximately a mile from our elementary school, also there are many elderly people who have been residents all their lives who will be affected due to chronic pulmonary and cardiac disease, which is not uncommon in the elderly. We once before had to fight the refinery's pollution, which they finally corrected to our relief.

The Priceton Trucking Co. cleans their tanks and pollutes our water. I feel we don't need any more pollution as we have never been able to get anything done about it.

Comment 6:

Would you like to live in this Refinery environment? Being a resident of Laketon for 84 years and only two blocks from the refinery, sometimes the odor is terrible. We do not need any more pollution. We must protect the school children from these fumes which is only one mile away.

I am opposed to any more pollution.

Comment 7:

About the Laketon Refinery Corp, I am 80 years old and live 3 houses from the refinery and I am sure we don't need any more pollution than we have at present.

Comment 8:

From Brian McNabney: I am a resident of Laketon, living on the east side of the Laketon Refinery. We have a usual south/west wind direction and the smell of the plant can be noticed a good percentage of the time. On occasion the smell is considerably strong. I have four reasons to question the credibility of this plant:

- 1. On the west side of the refinery (on the late R. Hopkins property) is a group of dead trees. While I was walking along there, I noticed the ground is saturated with oil.
- Oil slicks on Round Lake.
- 3. While operating the newly built loading (on the old Erie/Lakawona railroad property) several spills occurred.
- 4. Steam line explosions.

I consider this company to be somewhat negligent. I'm not as you would say "a happy camper".

Comment 9:

From Shirley & Larry Holmes: In the Wabash Plain Dealer on August 26, 1999 there was an article that the Laketon Refinery Corp., Wabash County, was asking for more permits. We feel it is necessary to write and tell you that we have enough, rather more than enough of their pollution. Sometimes we have to close our windows because the fumes are so bad and it smells like our backyard is full of tar. The fumes make me ill and have headaches and if we don't close the windows it's terrible. Also our home smells awful. We are asking that you not give them anymore permits.

Response 1 - 9:

The above comments indicate that previous problems with Laketon when it operated as a "refinery" have been corrected according to Comments 2 and 5 above. Presently, Laketon Refining Corporation is an asphalt liquid binder manufacturer, not a crude oil/fuel refinery, such as aviation gasoline. Laketon Refining does not plan to produce a new fuel or plan to produce any fuel. This proposed operating permit with new construction to replace a boiler and burn a biofuel which is less polluting than one hundred (100%) percent fuel oil, does not include any new refining fuel; refining operations. The proposed permit also includes the construction of a knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer and one (1) oxidized asphalt loading operation and rack.

Note that the Priceton Trucking Co. is not part of Laketon Refining Corporation, nor does Laketon Refining Corporation own the R. Hopkins property. The R. Hopkins property is not connected to Laketon Refining Corporation. With regard to the reported oil slick on Round Lake, Laketon has reported to IDEM all reportable spills. Laketon Refining Corporation has informed IDEM that the railroad right-of-way operated outbound between 1993 and 1995 before the refinery was shut down. Currently, the railroad right-of-way operates less often to bring asphalt inbound for unloading.

Laketon Refining is not aware of any steam line explosions. It is possible that Mr. McNabney has observed a steam hose failure in which steam line condensate traps releases a momentary burst of steam into the atmosphere, or the boiler blowdown, which discharges a large volume of steam and hot water with some noise to cleanse the boilers of sediment, calcium, and other minerals that have precipitated from the steam and water.

OAM coordinates permit reviews involving multi-media issues. Laketon Refining Corporation was issued a National Pollutant Discharge Elimination System (NPDES) permit (IN 0001244) in September 1990. Laketon has operated under this permit and applied to renew their NPDES permit for which the Notice of 30-day for Public Comment ended August 8, 1999. The renewed permit was issued on January 2, 2000 and will expire on November 30, 2004.

IDEM does not have specific authority to regulate odors. It should be noted that the process operations being proposed, other than the boilers, will be controlled by a thermal oxidizer which should minimize odors compared to uncontrolled emissions.

Please address concerns regarding discharges to water to the Office of Water Management inspector for Wabash County, Lynn Stackhouse at 317 - 233 - 2492. Or if your concerns involve solid or hazardous waste, please call the Office of Land Quality at 317 - 308 - 3103.

Laketon Refining Corporation has or will permanently dismantle the following equipment and will no longer be utilizing an alternative fuel oil as shown below:

- (1) Two (2) naphtha alkylate storage tanks, known as ST-080 and ST-082, constructed in 1970, capacity: 1,540,476 gallons, each.
- One (1) naphtha alkylate internal floating roof storage tank, known as ST-083, constructed in 1978, capacity: 2,275,014 gallons.
- One (1) naphtha alkylate storage tank, known as ST-084, constructed in 1978, capacity: 2,172,660 gallons.
- (4) Three (3) asphalt oxidizer storage tanks, known as ST-402, ST-403 and ST-404, constructed in 1983, capacity: 54,012 gallons, each.

- One (1) plant process flare, constructed in 1985, known as F-101, rated at 0.958 million British thermal units per hour.
- (6) A vapor recovery flare, constructed in 1997, known as F-102.
- (7) Two (2) tower reboiler heaters, known as H-702 and H-703, constructed in 1991, rated at 15.0 and 12.0 million British thermal units per hour, respectively.
- (8) One (1) asphalt storage tank, known as ST-042, constructed in 1965, capacity: 2,345,028 gallons.
- (9) One (1) naphtha alkylate storage tank, known as ST-081 constructed in 1970, capacity: 1,540,476 gallons.
- (10) One (1) naptha alkylate storage tank, known as ST-004, constructed in 1975, capacity: 2,183,790 gallons.
- (11) One (1) steam boiler, known as SB-902, natural or refinery gas-fired with No.6 oil backup, constructed in 1974, rated at 118.0 million British thermal units per hour.
- (12) One (1) storage tank, known as ST-001 currently has holes and does not hold liquid.
- (13) One (1) jet fuel storage tank, known as ST-005, capacity: 189,000 currently has holes and do not hold liquid.
- (14) Four (4) internal direct fire tube heaters, known as THI-942, THI-402, THI-403 and THI-404, constructed in 1965, 1983, 1983 and 1983, respectively, rated at 6.0, 0.75, 0.75, and 0.75 million British thermal units per hour.
- (15) One (1) asphalt oxidizer storage tank, known as ST-401, constructed in 1983, capacity: 18,264 gallons.
- (16) Three (3) oily wastewater and slop oil storage tanks, known as ST-032, ST-049 and ST-059, constructed in 1956.
- (17) Two (2) tanks, known as ST-026 and ST-027 formerly part of the MEROX jet fuel treating system, capacity: 8,800 gallons each.
- (18) The steam boiler, SB-901 was originally permitted with No. 6 oil as a back-up fuel. This boiler will no longer use No. 6 fuel oil.

The elimination of the actual emissions from these facilities results in a reduction in air pollution from this source.

Laketon has provided the following actual emission data that were previously reported to the IDEM annually since reporting was required starting in 1994 for the calendar year of 1993:

Air Pollutants Emitted (tons per year)

Year	Carbon Monoxide	Nitrogen Dioxide	PM ₁₀	Total PM	Sulfur Dioxide	Volatile Organics	Total
1993	3.69	15.63	0.77	0.82	22.15	35.70	78.76
1994	3.00	14.20	1.07	1.16	28.56	31.63	79.62
1995	3.05	11.42	0.26	0.26	15.24	34.15	64.38
1996	2.40	9.30	0.21	0.21	0.04	37.90	50.06
1997	2.60	10.45	0.23	0.23	0.02	52.00	65.53
1998	1.90	7.70	0.17	0.17	0.03	1.46	11.43

Toxic Chemical Releases as Reported on Form Rs (pounds per year)

Year	Benzene	Ethyl- Benzene	Toluene	Xylene	2-Methoxy ethanol	Glycol Ethers	Organic Lead	MTBE
1987	990	1,490	2,340	5,340	2,220			
1988	930	1,500	2,360	5,360	2,220			
1989	990	1,500	2,400	5,380	2,521			
1990	540			1,110	2,241			
1991	610			2,330	2,240			
1992	460			1,280	2,124	120		
1993	201			338		2,615		
1994	204		1,384	321		1,370		
1995			4,747				6	97
1996			493				3	60
1997	0	0	0	0	0	0	0	0
1998	0	0	0	0	0	0	0	0

Note that due to the discontinuation of actual refining in 1997, no toxic chemical releases have occurred, the chemicals are used in quantities less than the applicable thresholds, or the chemicals are no longer present at the refinery.

As stated in the Technical Support Document, the source has requested that the following proposed equipment and control device, which will control emissions significantly, be permitted.

- (1) One (1) knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, rated at 8.2 million British thermal units per hour, exhausted through Stack TO-1, capacity: 12.69 tons of oxidized asphalt per hour.
- (2) One (1) oxidized asphalt loading operation and rack, capacity: 24,000 gallons per hour.
- (3) Two (2) existing natural gas fired steam boilers, known as SB-901 and SB-903, with new backup capability to burn a blend of No. 1 or 2 fuel oils and biofuel, exhausted through Stacks SB-901 and SB-903, rated at 36.0 and 8.37 million British thermal units per hour, constructed in 1970 and installed in 1997, respectively.
- (4) One (1) natural gas fired steam boiler, known as SB-904, with backup capability to burn a blend of Nos. 1, 2 or 6 fuel oils and biofuel, exhausted through Stack SB-904, rated at 16.723 million British thermal units per hour (500 horsepower) to be installed.

As shown on page 12 of the Technical Support Document (TSD) and shown in detail in Appendix C to the TSD, the asphalt oxidizing operation equipped with a thermal oxidizer for pollution control potentially results in 14.8 tons of PM and PM_{10} per year, 1.03 tons of VOC and 4.89 tons of CO per year assuming this proposed process operates at capacity for every hour of the year. Actual emissions are likely to be less, but the applicable rules and regulations governing the permitting procedures assumed full capacity for every hour of the year.

Likewise, the worst case emissions from the boilers on any fuel: natural gas, fuel oil or biofuel is shown below. Natural gas was previously permitted for boiler SB-901 and the source has been burning natural gas or fuel oil in boiler SB-903. The proposed boiler SB-904 is rated at 16.723 million British thermal units per hour and would replace the permitted boiler SB-902 rated at 118 million British thermal units per hour which was taken out of service. This proposed replacement results in a seven (7) times reduction in capacity of the boiler. The potential emissions from this larger boiler were not presented. The use of biofuel in place of fuel oil results in a significant reduction in SO_2 emissions compared to burning fuel oil alone, but is not as clean as the primary fuel, natural gas.

	Limited Potential to Emit (tons/year)						
Process/facility	PM	PM ₁₀	SO ₂	VOC	СО	NO _x	HAPS
SB-901 SB-903 SB-904 Four (4) Asphalt Oxidizing Tank Process Operations	2.42 0.564 3.82 14.8 (86.1)	2.42 0.564 3.82 14.8 (86.1)	40.9* 18.6 38.3	0.867 0.202 0.552 1.03 (36.1)	13.2 3.08 6.15 4.89 (48.9)	24.2 5.64 26.9	negligible negligible negligible negligible
Total	21.6	21.6	97.8	2.65	22.4	79.2	negligible

The values in parentheses are the allowable PM_{10} (and equivalent PM) emissions with a minimum 94.2 percent control efficiency. The values in parentheses are the allowable VOC emissions with a minimum 65.0 percent control efficiency. The values in parentheses are the allowable CO emissions with a minimum 90.0 percent control efficiency. These minimum control efficiencies are necessary for the PM_{10} , VOC and CO emissions to comply with the requirements of 326 IAC 2-8.

The above emissions from the proposed facilities and/or alternative fuels have conditions and emission limits that will assure compliance with all Indiana rules for permitting and operation. These conditions were contained in the Sections D.3 and D.4 of the proposed permit as follows:

 $^{^*}$ The SO $_2$ emissions from SB-901 on the worst case No. 1 or No. 2 fuel oil will be limited to 1,151,627 gallons per year, equivalent to 40.9 tons per year.

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: - Knock-out Tank and Loading Rack Operation

- (ss) One (1) knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, rated at 8.2 million British thermal units per hour, exhausted through Stack TO-1, capacity: 12.69 tons of oxidized asphalt per hour.
- (tt) One (1) oxidized asphalt loading operation and rack, capacity: 24,000 gallons per hour.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.3.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

- D.3.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.
- D.3.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.3.4 Particulate Matter (PM) [326 IAC 6-3]

Pursuant to 326 IAC 6-3 (Process Operations), the allowable PM emission rate from the asphalt oxidizing operations shall not exceed 22.5 pounds per hour when operating at a process weight rate of 12.69 tons per hour.

The pounds per hour limitation was calculated with the following equation:

Interpolation and extrapolation of the data for the process weight rate up to 60,000 pounds per hour shall be accomplished by use of the equation:

 $E = 4.10 P^{0.67}$ where E = rate of emission in pounds per hour; and P = process weight rate in tons per hour

D.3.5 PM₁₀ [326 IAC 2-8]

- (a) Pursuant to 326 IAC 2-8, the PM_{10} emissions from the knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, shall not exceed 19.6 pounds per hour. This condition limits the potential to emit PM_{10} to 86.1 tons per year.
- (b) When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to maintain a minimum ninety-four and two tenths percent (94.2%) overall control efficiency (capture and destruction) of the PM₁₀.

D.3.6 VOC [326 IAC 2-8]

- (a) Pursuant to 326 IAC 2-8, the VOC emissions from the knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, shall not exceed 8.24 pounds per hour. This condition limits the potential to emit VOC to 36.1 tons per year.
- (b) When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to maintain a minimum sixty-five percent (65.0%) overall control efficiency (capture and destruction) of the VOC.

D.3.7 CO [326 IAC 2-8]

- (a) Pursuant to 326 IAC 2-8, the CO emissions from the knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, shall not exceed 11.2 pounds per hour. This condition limits the potential to emit CO to 48.9 tons per year.
- (b) When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to maintain a minimum ninety percent (90%) overall control efficiency (capture and destruction) of the CO.

D.3.8 Thermal Oxidizer Operation

The thermal oxidizer, TO-1, controlling the emissions from the knock-out tank, KO-1, shall operate at all times that the asphalt oxidizing operations are in progress. When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to comply with the pound per hour limits stated in Conditions D.3.5, D.3.6 and D.3.7.

D.3.9 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for knock-out tank, KO-1, and its control device, TO-1.

Compliance Determination Requirements

D.3.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

- (a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM₁₀ testing of the knock-out tank and thermal oxidizer utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM₁₀, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensible PM₁₀. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform VOC and CO testing of the thermal oxidizer exhausting through Stack TO-1 to determine the capture and destruction efficiencies for overall VOC and CO control utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.3.11 Monitoring

- (a) Daily records of the thermal oxidizer operating temperature shall be observed on each day that the knock-out tank, KO-1, is operated. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C Compliance Monitoring Plan Failure to Take Response Steps, shall be considered a violation of this permit.
- (b) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

D.3.12 Visible Emissions Notations

- (a) Visible emission notations of the thermal oxidizer stack exhaust shall be performed once per shift during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.13 Record Keeping Requirements

- (a) To document compliance with Condition D.3.9, the Permittee shall maintain daily records of the thermal oxidizer operating temperature whenever the knock-out tank is in operation.
- (b) To document compliance with Condition D.3.12, the Permittee shall maintain records of daily visible emission notations of the thermal oxidizer stack exhaust once per shift.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

SECTION D.4

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]: Steam Boilers

- (uu) Two (2) existing permitted natural gas fired steam boilers, known as SB-901 and SB-903, with backup capability to burn a blend of No. 1 or 2 fuel oils and biofuel, exhausted through Stacks SB-901 and SB-903, rated at 36.0 and 8.37 million British thermal units per hour, constructed in 1970 and installed in 1997, respectively.
- (vv) One (1) natural gas fired steam boiler, known as SB-904, with backup capability to burn a blend of Nos. 1, 2 or 6 fuel oils and biofuel, exhausted through Stack SB-904, rated at 16.723 million British thermal units per hour (500 horsepower) to be installed.

(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)

THIS SECTION OF THE PERMIT IS BEING ISSUED UNDER THE PROVISIONS OF 326 IAC 2-1 AND 326 IAC 2-8-11.1, WITH CONDITIONS LISTED BELOW.

Construction Conditions

General Construction Conditions

D.4.1 This permit to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

- D.4.2 Pursuant to IC 13-15-5-3, this section of this permit becomes effective upon its issuance.
- D.4.3 All requirements of these construction conditions shall remain in effect unless modified in a manner consistent with procedures established for revisions pursuant to 326 IAC 2.

Operation Conditions

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.4.4 Particulate Matter Limitation (PM) [326 IAC 6-2]

- (a) Pursuant to 326 IAC 6-2-3 (d)(Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1 (b)), particulate emissions from steam boiler, SB-901, used for indirect heating purposes which was existing and in operation on or before June 8, 1972, shall in no case exceed 0.8 pounds of particulate matter per million British thermal units heat input.
- (b) Pursuant to 326 IAC 6-2-4 (Emission limitations for facilities specified in 326 IAC 6-2-1 (c)), particulate emissions from steam boilers, SB-903 and SB-904, used for indirect heating purposes shall not exceed 0.407 and 0.374 pounds of particulate matter per million British thermal units heat input, respectively.

D.4.5 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1] [326 IAC 12-1]

For steam boiler, SB-904, pursuant to 326 IAC 7-1.1 (SO₂ Emissions Limitations) and 40 CFR 60, Subpart Dc (Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units),:

- (a) No. 1 or No. 2 Fuel Oil or Biofuel
 - (1) The SO₂ emissions from the sixteen and seven hundred and twenty-three thousandths (16.723) million British thermal units per hour boiler shall not exceed five tenths (0.5) pounds per million British thermal units heat input;

or

- (2) The sulfur content of the fuel shall not exceed five-tenths percent (0.5%) by weight. [40 CFR 60.42c(d)]
- (b) No. 6 Fuel Oil

The SO_2 emissions from the sixteen and seven hundred and twenty-three thousandths (16.723) million British thermal units per hour boiler shall not exceed one and six-tenths (1.6) pounds per million British thermal units heat input.

(c) Pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur content limit applies at all times, including periods of startup, shutdown, and malfunction.

D.4.6 Sulfur Dioxide (SO₂) [326 IAC 7-1.1-1]

For steam boiler, SB-901, pursuant to 326 IAC 7-1.1 (SO_2 Emissions Limitations) the SO_2 emissions from the thirty-six (36.0) million British thermal units per hour boiler on No. 1, No. 2 or biofuel shall not exceed five tenths (0.5) pounds per million British thermal units heat input.

D.4.7 Sulfur Dioxide (SO₂) [326 IAC 2-8]

- (a) The total input of equivalent No. 1 or No. 2 fuel oil to steam boiler, SB-901, shall be limited to 1,151,627 gallons per twelve (12) consecutive month period. This fuel limit is equivalent to 40.9 tons per year of SO₂.
- (b) For purposes of determining compliance based on SO₂ emissions each gallon of biofuel shall be equivalent to 0.360 gallons of No. 1 or No. 2 fuel oil.
- (c) For purposes of determining compliance based on SO₂ emissions each million cubic feet of natural gas shall be equivalent to 8.45 gallons of No. 1 or No. 2 fuel oil.

D.4.8 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for SB-901 and SB-904 and any control devices.

Compliance Determination Requirements

D.4.9 Sulfur Dioxide Emissions and Sulfur Content

Pursuant to 40 CFR 60, Subpart Dc, the Permittee shall demonstrate compliance for steam boilers, SB-901 and SB-904 utilizing one of the following options:

- (a) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
- (b) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (1) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (2) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling.

D.4.10 Sulfur Dioxide Emissions and Sulfur Content

Compliance for steam boiler, SB-903, shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification; or
 - (2) Analyzing the oil sample to determine the sulfur content of the oil via the procedures in 40 CFR 60, Appendix A, Method 19.
 - (A) Oil samples may be collected from the fuel tank immediately after the fuel tank is filled and before any oil is combusted; and
 - (B) If a partially empty fuel tank is refilled, a new sample and analysis would be required upon filling; or

(b) Compliance may also be determined by conducting a stack test for sulfur dioxide emissions from the thirteen (13) MMBtu per hour heater, using 40 CFR 60, Appendix A, Method 6 in accordance with the procedures in 326 IAC 3-6.

A determination of noncompliance pursuant to either of the methods specified in (a) or (b) above shall not be refuted by evidence of compliance pursuant to the other method.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.4.11 Visible Emissions Notations

- (a) Visible emission notations of the SB-901, SB-903 and SB-904 stack exhausts shall be performed once per shift during normal daylight operations when exhausting to the atmosphere burning Nos. 1, 2, 6 fuel oil or biofuel. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.4.12 Record Keeping Requirements

- (a) To document compliance with Conditions D.4.5 and D.4.6, the Permittee shall maintain records for steam boilers, SB-901 and SB-904, in accordance with (1) through (6) below. Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions:
 - (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; the natural gas fired boiler certification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and

If the fuel supplier certification is used to demonstrate compliance the following, as a minimum, shall be maintained:

- (4) Fuel supplier certifications.
- (5) The name of the fuel supplier; and
- (6) A statement from the fuel supplier that certifies the sulfur content of the fuel oil.

The Permittee shall retain records of all recording/monitoring data and support information for a period of five (5) years, or longer if specified elsewhere in this permit, from the date

of the monitoring sample, measurement, or report. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.

- (b) To document compliance with Condition D.4.9, the Permittee shall maintain records of daily visible emission notations of the SB-901, SB-903 and SB-904 stack exhausts when burning Nos. 1, 2, 6 fuel oil or biofuel.
- (c) All records shall be maintained in accordance with Section C General Record Keeping Requirements, of this permit.

D.4.13 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.7 when No. 1, No.2 or No.6 fuel oil, biofuel or natural gas was combusted, and the natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Comment 10

On September 29, 1999 at 9:30 PM CST, an anonymous resident of Laketon, left a message on the MES (OAM's contractor for this permit) answering machine with no mailing address or telephone number complaining that IDEM should be aware that a thick fog that "smells like burning tires" was present.

Response 10:

In speaking with source personnel, he informed me that Laketon Refining had not burned anything other than boiler fuel which should not have had any unusual odor. He said that last night and yesterday, the wind was from the northwest which would blow any emissions or odors away from the town of Laketon.

Most of Indiana was under an open burning ban due to drought conditions and no significant rain had fallen for the last month or more. However central Indiana received an inch of rain and the plant manager said that they got nearly 4 inches in the last couple of days. Laketon Refining has been bringing in a "monar" type of asphalt for blending into our asphalt products that may have a slight different odor, but certainly not a burning tire odor. Monar is a dense heavy asphalt with high molecular weight and certainly has the least volatility of any of their asphalt products used.

Be assured that OAM will enforce the permit conditions by conducting inspections. Should any air concerns be raised from the operation of this source, please feel free to contact OAM, IDEM air inspector at 317 - 233 - 5674.

On September 27, 1999, Douglas A. Lozier of Laketon Refining, submitted comments on the proposed FESOP. The comments are as follows:

Comment 11:

Page 31 of 52, Item C.20(a): We believe there is a typographical error in that the second line reads "...the source shall submit a Quarterly. Compliance Monitoring Report.". We believe that the period (.) after "Quarterly" should be deleted.

Response 11:

The typographical error has been corrected by deleting the period in Condition C.20(a) (now C.19(a)), as follows:

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) To affirm that the source has met all the compliance monitoring requirements stated in this permit the source shall submit a Quarterly. Compliance Monitoring Report. Any deviation from the requirements and the date(s) of each deviation must be reported. The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC2-1.1-1(1).

Comment 12:

Page 31 of 52, Items C.20(a) and C.20(d): Subparagraph (a) requires the Quarterly Compliance Monitoring Report to be certified by an "authorized individual" but subparagraph (d) states that the reports do not require "authorized individual" certification. Laketon Refining is requesting clarification on this point.

Response 12:

Condition C.20(a) (now C.19) (see Comment 1) states that "The Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1)" and be submitted quarterly. The Quarterly Compliance Monitoring Report was proposed on page 52 of 52 of the FESOP. Condition C.20(d) specifically states that unless otherwise stated in the permit, any quarterly reports, such as the FESOP Quarterly Report proposed on page 51 of 52, do not require certification by the authorized individual. Condition C.20(d) states:

C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)]

(d) Unless otherwise specified in this permit, any quarterly report shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Comment 13:

Pages 36 and 37 of 52, Items D.3.4 through D.3.13: The asphalt oxidizing system, loading and the associated control equipment mentioned herein are proposed for future construction and may or may not ever be constructed. Laketon Refining would like clarification that the operating conditions and compliance monitoring and reporting conditions will not apply to this equipment until it is constructed if it is ever constructed.

Response 13:

Your interpretation is correct. These conditions will apply to the proposed new equipment listed in Section D.3 after it is constructed.

Comment 14:

Page 40 of 52, Items D.4.10 and D.4.11: Paragraph D.4.10 provides for compliance with sulfur dioxide emissions for the 901 and 904 boilers (36 MMBTUH and 16.723 MMBTUH respectively) by (a) providing vendor analysis of the fuel oil, OR (b) analyzing the oil sample. Paragraph D.4.11 provides for the compliance of sulfur dioxide from the 903 boiler, a small 8.37 MMBTUH boiler by (a) providing vendor analysis of the fuel oil, and (implied) (b) analyzing the oil sample. Without the word "or", it would appear that Laketon Refining will have to conduct both obtaining vendor analysis and analyze the oil sample for a smaller boiler than the two larger ones. Laketon Refining requests that the word "or" be applied to the two options of Item D.4.11.

Response 14:

The word "or" will be incorporated in Condition D.4.11 (now D.4.10) as suggested, and therefore Condition D.4.11 has been revised as follows:

D.4.10 Sulfur Dioxide Emissions and Sulfur Content

Compliance for steam boiler, SB-903, shall be determined utilizing one of the following options.

- (a) Pursuant to 326 IAC 3-7-4, the Permittee shall demonstrate that the fuel oil sulfur content does not exceed five-tenths percent (0.5%) by weight by:
 - (1) Providing vendor analysis of fuel delivered, if accompanied by a certification; or

Upon further review, the OAM has decided to make the following changes to the FESOP: The permit language is changed to read as follows (deleted language appears as strikeouts, new language is **bolded)**:

1. Condition A.1 has been revised to show that the source is minor under Section 112 of the Clean Air Act and that in Wabash County, only PSD rules applies as follows:

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary asphalt liquid binder manufacturing source

Authorized individual: Lewis L. Davis

Source Address: 2784 West Lukens Lake Road, Laketon, Indiana 46943 Mailing Address: PO Box 68123, Indianapolis, Indiana 46268-0123

Phone Number: 317 - 875 - 4670

SIC Code: 2951 County Location: Wabash

County Source Location Status: Attainment for all criteria pollutants

Source Status: Federally Enforceable State Operating Permit (FESOP)

Minor Source, under PSD or Emission Offset Rules; Major Minor Source, Section 112 of the Clean Air Act

2. Condition B.2 (Definitions) has been revised because it is frequently commented on as follows:

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, any the applicable definitions found in **the statutes or regulations** (IC 13-11, 326 IAC 1-2 and 326 IAC 2-7) shall prevail.

3. Condition B.4 (Enforceability) B.4(b) has been deleted and combined with B.4(a) as follows:

B.4 Enforceability [326 IAC 2-8-6]

- (a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.
- (b) Unless otherwise stated, terms and conditions of this permit, including any provisions to limit the source's potential to emit, are enforceable by the United States Environmental Protection Agency (U.S. EPA) and citizens under the Clean Air Act.
- 4. Condition B.8 (Duty to Supplement and Provide Information) language has been added to clarify what types of documents must be certified by the authorized individual. Condition B.8(c) has been revised as follows to clarify the procedures for a claim of confidentiality:

B.8 Duty to Supplement and Provide Information [326 IAC 2-8-3(f)] [326 IAC 2-8-4(5)(E)]

(a) The Permittee, upon becoming aware that any relevant facts were omitted or incorrect information was submitted in the permit application, shall promptly submit such supplementary facts or corrected information to:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall furnish to IDEM, OAM, within a reasonable time, any information that IDEM, OAM, may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- Upon request, the Permittee shall also furnish to IDEM, OAM, copies of records required to be kept by this permit. If the The Permittee wishes to assert a claim of confidentiality over any of the furnished records, the Permittee must furnish such records to IDEM, OAM, along with a claim of confidentiality under 326 IAC 17 may include a claim of confidentiality in accordance with 326 IAC 17. If requested by IDEM, OAM, or the U.S. EPA, to furnish copies of requested records directly to U.S. EPA, then the Permittee must furnish record directly to the U.S. EPA. and if the The Permittee is making a claim of confidential records directly to the U.S. EPA along with may assert a claim of confidentiality under in accordance with 40 CFR 2, Subpart B.
- 5. Condition B.11 (Certification) has had the words "under this permit" deleted as follows:

B.11 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

(a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted under this permit shall contain certification by a authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

- (b) One (1) certification shall be included, on the attached Certification Form, with each submittal.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).
- 6. Condition B.12 (Annual Compliance Certification), the word "appropriate" has been added to Condition B.12(c)(1) and as part of the U.S. EPA's 1997 Compliance Assurance Monitoring rule making (Federal Register Volume 62, page 54900-54947, Wednesday, October 22, 1997), the language in 40 CFR Part 70.6(c)(5)(iii)(B)) was changed from "continuous or intermittent compliance" to "based on continuous or intermittent data" The U.S. District Court of Appeals, Washington D.C. ruled against EPA's language, saying that the Clean Air Act wording of continuous or intermittent compliance had to be used. (NRDC vs. EPA, #97-1727) This change has been made to this Condition B.12(c)(3) to be consistent with state and federal law as follows:

B.12 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (c) The annual compliance certification report shall include the following:
 - (1) The **appropriate** identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was based on continuous or intermittent data;
 - (4) The methods used for determining compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
 - (5) Such other facts, as specified in Sections D of this permit, as IDEM, OAM, may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

7. Condition B.13 (Preventive Maintenance Plan) language has been added to clarify that the PMP and the PMP extension request do not need to be certified by the authorized individual. Preventive Maintenance Plans" has been replaced with "PMPs", since it has already been defined as follows:

B.13 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions: **and**
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond its control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90)

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days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

The PMP and the PMP extension notification do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the Preventive Maintenance Plans PMPs as necessary to ensure that failure to implement the Preventive Maintenance Plans a PMP does not cause or contribute to a violation of any limitation on emissions or potential to emit.
- (c) A copy of the PMP's shall be submitted to IDEM, OAM, upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAM. IDEM, OAM, may require the Permittee to revise its Preventive Maintenance Plans PMPs whenever lack of proper maintenance causes or contributes to any violation. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- 8. Condition B.15 (Deviations from Permit Requirements and Conditions) has been revised so that it will not conflict with Condition C.17 (Compliance Monitoring Plan Failure to Take Response Steps). This should clarify that failure to perform or record the required monitoring is a deviation, but if the failure is less than 5% per quarter then it doesn't have to be reported as a deviation. Then Condition C.17(f) allows IDEM the discretion to not enforce against the failure to perform or record provided they justify the reasons for the failure as follows:
- B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]
 - (a) Deviations from any permit requirements (for emergencies see Section B Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within ten (10) calendar days from the date of the discovery of the deviation. The failure to perform the monitoring or record the information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit or a rule. It does not include:
 - (1) An excursion from compliance monitoring parameters as identified in Section D of this permit unless tied to an applicable rule or limit; or
 - (2) An emergency as defined in 326 IAC 2-7-1(12); or
 - (3) Failure to implement elements of the Preventive Maintenance Plan unless lack of maintenance such failure has caused or contributed to a deviation.
 - (4) Failure to make or record information required by the compliance monitoring provisions of Section D unless such failure exceeds 5% of the required data in any calendar quarter.

- A Permittee's failure to take the appropriate response step when an excursion of a compliance monitoring parameter has occurred is a deviation.
- (c) Written notification shall be submitted on the attached Emergency/Deviation Occurrence Reporting Form or its substantial equivalent. The notification does not need to be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) Proper notice submittal under 326 IAC 2-7-16 satisfies the requirement of this subsection.
- 9. Condition B.16 (Permit Modification, Reopening, Revocation and Reissuance, or Termination) language has been added to clarify that a request to re-open or revoke the permit must be certified by the authorized individual, since these are decisions/ actions that will change the status of the source as follows:
- B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]
 - (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
 - (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAM determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
 - (c) Proceedings by IDEM, OAM, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
 - (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAM, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAM, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]
- 10. Condition B.17 (Permit Renewal), language has been added to clarify that an application to renew the permit must be certified by the authorized individual as follows.
- B.17 Permit Renewal [326 IAC 2-8-3(h)]
 - (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAM and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- 11. Condition B.18 (Permit Amendment or Modification) (a) has been revised as follows:
- B.18 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]
 - (a) The Permittee must comply with Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.
- 12. Condition B.19 (Operational Flexibility) the rule cite in (a)(2) was changed to reference 326 IAC 2-8-11.1 as follows:
- B.19 Operational Flexibility [326 IAC 2-8-15]
 - (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any approval required by 326 IAC 2-1.1 2-8-11.1 has been obtained;
 - (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

Indiana Department of Environmental Management Permits Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

and

United States Environmental Protection Agency, Region V Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J) 77 West Jackson Boulevard Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

(5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAM, in the notices specified in 326 IAC 2-8-15(b), (c)(1), and (d).

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(36)) without a permit revision, subject to the constraint of 326 IAC 2-8-15(a) and the following additional conditions:

- (1) A brief description of the change within the source;
- (2) The date on which the change will occur;
- (3) Any change in emissions; and
- (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1.

- (c) Emission Trades [326 IAC 2-8-15(c)]
 The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (d) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
 The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAM or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.
- 13. Condition B.20 (Construction Permit Requirement) has been revised to address the correct rules for construction at a FESOP source as follows:
- B.20 Construction Permit **Revision** Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction shall be approved if required by and in accordance with is governed by the applicable provisions of 326 IAC 2-8-11.1.

- 14. In Condition B.24 (Advanced Source Modification Approval), Condition B.24(b) has been added to clarify that the permit can be revoked if construction hasn't commenced in 18 months, or if work is suspended for one year or more. Those requirements are found in the general provisions under 326 IAC 2-1.1-9 therefore that rule cite has been added to the title as follows:
- B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]
 - (a) The requirements to obtain a permit revision under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3 if such modifications occur during the term of this permit.
 - (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if failure to commence construction of the emission unit within eighteen (18) months from the date of issuance of the permit, or if during the construction of work is suspended for a continuous period of one (1) year or more.
- 15. Condition C.1(Overall Source Limit [326 IAC 2-8]) has been corrected as follows to cite PSD rather than emission offset:
- C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) 326 IAC 2-3 (Emission Offset):
- 16. Condition C.2 (Opacity) has been revised to correctly reflect the rule language as follows:

C.2 Opacity [326 IAC 5-1]

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Exemptions Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.
- 17. Condition C.4 (Incineration) has been revised to be consistent with wording in other conditions as follows:
- C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2. The provisions of 326 IAC 9-1-2 are is not federally enforceable.

18. Condition C.9 (Performance Testing) has been rearranged for clarity. Language has also been added to indicate that the test protocol and the notification of the test date do not require certification by the authorized individual as follows:

C.9 Performance Testing [326 IAC 3-6]

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAM.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

Indiana Department of Environmental Management Compliance Data Section, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

no later than thirty-five (35) days prior to the intended test date. The Permittee shall submit a notice of the actual test date to the above address so that it is received at least two weeks prior to the test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAM of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b)(c) Pursuant to 326 IAC 3-6-4(b), all All test reports must be received by IDEM, OAM, within forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAM, if the source submits to IDEM, OAM, a reasonable written explanation within five (5) days prior to the end of the initial forty-five (45) day period.

The documentation submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

19. Condition C.10 (Compliance Requirements) this is a new condition that refers to our general compliance authority in 326 IAC 2-1.1-11 as follows:

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

- 20. Condition C.10 (now C.11)(Compliance Monitoring) has been revised to clarify that new emission units must begin compliance monitoring upon start-up as follows:
- C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Compliance with applicable requirements shall be documented as required by this permit. All monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P. O. Box 6015 Indianapolis, Indiana 46206-6015

in writing, prior to the end of the initial ninety (90) day compliance schedule, with full justification of the reasons for the inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

21. Condition C.14 (Emergency Reduction Plans) There was an error in this condition. The ERP <u>does</u> require certification by the authorized individual, since most of the time an emergency will mean shut down as follows:

Laketon Refining Corporation Laketon, Indiana Permit Reviewer:MES Page 27 of 38 F 169-7939-00006

C.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

(b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management Compliance Branch, Office of Air Management 100 North Senate Avenue, P.O. Box 6015 Indianapolis, Indiana 46206-6015

within ninety (90) days from the date of issuance of this permit.

The ERP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- 22. Condition C.15 (Risk Management Plan) (b) was removed because it is repetitive of (a)(2) (now (b)) as follows:
- C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68.215]

If a regulated substance, subject to 40 CFR 68, is present at a source in more than a threshold quantity, 40 CFR 68 is an applicable requirement and the Permittee shall **submit**:

- (a) Submit:
- (1)(a) A compliance schedule for meeting the requirements of 40 CFR 68 by the date provided in 40 CFR 68.10(a); or
- (2)(b) As a part of the **annual** compliance certification submitted under 326 IAC 2-7-6(5), a certification statement that the source is in compliance with all the requirements of 40 CFR 68, including the registration and submission of a Risk Management Plan (RMP); and
- (3)(c) A verification to IDEM, OAM, that a RMP or a revised plan was prepared and submitted as required by 40 CFR 68.
- (b) Provide annual certification to IDEM, OAM, that the Risk Management Plan is being properly implemented.

All documents submitted pursuant to this condition shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- 23. Condition C.16 (Compliance Monitoring Plan Failure to Take Response Steps) (c)(1) has been revised to clarify the intent as follows:
- C.16 Compliance Monitoring Plan Failure to Take Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5] [326 IAC 1-6]
 - (a) The Permittee is required to implement a compliance monitoring plan to ensure that reasonable information is available to evaluate its continuous compliance with applicable requirements. The compliance monitoring plan can be either an entirely new document, consist in whole information contained in other documents, or consist of a combination of new information and information contained in other documents. If the compliance monitoring plan incorporates by reference information contained in other documents, the Permittee shall identify as part of the compliance monitoring plan the documents in which the information is found. The elements of the This compliance monitoring plan is comprised of are:

- (1) This condition;
- (2) The Compliance Determination Requirements in Section D of this permit;
- (3) The Compliance Monitoring Requirements in Section D of this permit;
- (4) The Record Keeping and Reporting Requirements in Section C (Monitoring Data Availability, General Record Keeping Requirements, and General Reporting Requirements) and in Section D of this permit; and
- (5) A Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. CRP's shall be submitted to IDEM, OAM upon request and shall be subject to review and approval by IDEM, OAM. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee and maintained on site, and is comprised of:
 - (A) **Reasonable** response steps that **may** will be implemented in the event that compliance related information indicates that a response step is needed pursuant to the requirements of Section D of this permit; and
 - (B) A time schedule for taking **reasonable** such response steps including a schedule for devising additional response steps for situations that may not have been predicted.
- (b) For each compliance monitoring condition of this permit, appropriate reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition. Failure to perform the actions detailed in the compliance monitoring conditions or failure to take the response steps within the time prescribed in the Compliance Response Plan to take reasonable response steps shall constitute a violation of the permit. unless taking the response steps set forth in the Compliance Response Plan would be unreasonable.
- (c) After investigating the reason for the excursion, **Upon investigation of a compliance monitoring excursion**, the Permittee is excused from taking further response steps for any of the following reasons:
 - (1) The monitoring equipment malfunctioned, giving a false reading. A false reading occurs due to the malfunction of the monitoring equipment. This shall be an excuse from taking further response steps providing that prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied or;
 - (3) An automatic measurement was taken when the process was not operating; or
 - (4) The process has already returned **or is returning** to operating within "normal" parameters and no response steps are required.
- (d) Records shall be kept of all instances in which the compliance related information was not met and of all response steps taken. In the event of an emergency, the provisions of 326 IAC 2-7-16 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.

- (e) All monitoring required in Section D shall be performed at all times the equipment is operating. If monitoring is required by Section D and the equipment is not operating, then the Permittee may record the fact that the equipment is not operating or perform the required monitoring.
- (f) If for reasons beyond its control, the Permittee fails to perform the monitoring and record keeping as required by Section D, then the reasons for this must be recorded.
 - (1) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent of the operating time in any quarter.
 - (2) Temporary, unscheduled unavailability of qualified staff shall be considered a valid reason for failure to perform the monitoring or record keeping requirements in Section D.
- 24. Condition C.17 (Actions Related to Noncompliance Demonstrated by a Stack Test) has been revised as follows:
- C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4] [326 IAC 2-8-5]
 - (a) When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate corrective actions. The Permittee shall submit a description of these corrective actions to IDEM, OAM, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the corrective actions are being implemented. IDEM, OAM shall notify the Permittee within thirty (30) days, if the corrective actions taken are deficient. The Permittee shall submit a description of additional corrective actions taken to IDEM, OAM within thirty (30) days of receipt of the notice of deficiency. IDEM, OAM reserves the authority to use enforcement activities to resolve noncompliant stack tests.
 - (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAM that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAM may extend the retesting deadline. Failure of the second test to demonstrate compliance with the appropriate permit conditions may be grounds for immediate revocation of the permit to operate the affected facility.
 - (c) IDEM, OAM reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The documents submitted pursuant to this condition do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

25. Condition C.18 (Monitoring Data Availability) has been incorporated into Condition C.16 Compliance Monitoring Plan- Failure to Take Response Steps as follows:

C.18 Monitoring Data Availability

(a) With the exception of performance tests conducted in accordance with Section C-Performance Testing all observations, sampling, maintenance procedures, and record keeping, required as a condition of this permit shall be performed at all times the equipment is operating at normal representative conditions.

- (b) As an alternative to the observations, sampling, maintenance procedures, and record keeping of subsection (a) above, when the equipment listed in Section D of this permit is not operating, the Permittee shall either record the fact that the equipment is shut down or perform the observations, sampling, maintenance procedures, and record keeping that would otherwise be required by this permit.
- (c) If the equipment is operating but abnormal conditions prevail, additional observations and sampling should be taken with a record made of the nature of the abnormality.
- (d) If for reasons beyond its control, the operator fails to make required observations, sampling, maintenance procedures, or record keeping, reasons for this must be recorded.
- (e) At its discretion, IDEM may excuse such failure providing adequate justification is documented and such failures do not exceed five percent (5%) of the operating time in any quarter.
- (f) Temporary, unscheduled unavailability of staff qualified to perform the required observations, sampling, maintenance procedures, or record keeping shall be considered a valid reason for failure to perform the requirements in (a) above.
- 26. Condition C.19 (now Condition C.18) (General Record Keeping Requirements) has been revised to be more consistent with the rules and to assure sources that they get a "reasonable time" to produce records and Condition C.19(c)(4) (now C.18(c)(4)) has been deleted as follows:
- C.18 General Record Keeping Requirements [326 IAC 2-8-4(3)][326 IAC 2-8-5]
 - (a) Records of all required monitoring data and support information shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be kept at the source location for a minimum of three (3) years and available upon the request of an IDEM, OAM, representative. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a written request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
 - (b) Records of required monitoring information shall include, where applicable:
 - (1) The date, place, and time of sampling or measurements;
 - (2) The dates analyses were performed;
 - (3) The company or entity performing the analyses;
 - (4) The analytic techniques or methods used;
 - (5) The results of such analyses; and
 - (6) The operating conditions existing at the time of sampling or measurement.
 - (c) Support information shall include, where applicable:
 - (1) Copies of all reports required by this permit;
 - (2) All original strip chart recordings for continuous monitoring instrumentation;
 - (3) All calibration and maintenance records;

- (4) Records of preventive maintenance. shall be sufficient to demonstrate that failure to implement the Preventive Maintenance Plan did not cause or contribute to a violation of any limitation on emissions or potential to emit. To be relied upon subsequent to any such violation, these records may include, but are not limited to: work orders, parts inventories, and operator's standard operating procedures. Records of response steps taken shall indicate whether the response steps were performed in accordance with the Compliance Response Plan required by Section C Compliance Monitoring Plan Failure to take Response Steps, of this permit, and whether a deviation from a permit condition was reported. All records shall briefly describe what maintenance and response steps were taken and indicate who performed the tasks.
- (d) All record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- 27. Condition C.20 (now Condition C.19)(General Reporting Requirements) (d) has been revised so that it is clear the reports it refers to are the ones required by Section D as follows:
- C.19 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]
 - (d) Unless otherwise specified in this permit, any quarterly report **required in Section D of this permit** shall be submitted within thirty (30) days of the end of the reporting period. The reports do not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
 - (g) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years.
- 28. For clarification, Conditions D.3.5, 3.6 and 3.7 have been revised and specify the control efficiencies (capture and destruction) as follows:

D.3.5 PM₁₀ [326 IAC 2-8]

- Pursuant to 326 IAC 2-8, the PM₁₀ emissions from the knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, shall not exceed 19.6 pounds per hour. This condition limits the potential to emit PM₁₀ to 86.1 tons per year. based on a 27,000 gallons of oxidized asphalt per nine (9) hour batch, equivalent to 86.1 tons per year.
- (b) When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to maintain a minimum ninety-four and two tenths percent (94.2%) overall control efficiency (capture and destruction) of the PM₁₀.

D.3.6 VOC [326 IAC 2-8]

- (a) Pursuant to 326 IAC 2-8, the VOC emissions from the knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, shall not exceed 8.24 pounds per hour. This condition limits the potential to emit VOC to 36.1 tons per year. based on a 27,000 gallons of oxidized asphalt per nine (9) hour batch, equivalent to 36.1 tons per year.
- (b) When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to maintain a minimum sixty-five percent (65.0%) overall control efficiency (capture and destruction) of the VOC.

D.3.7 CO [326 IAC 2-8]

- Pursuant to 326 IAC 2-8, the CO emissions from the knock-out tank, known as KO-1, equipped with a natural gas fired thermal oxidizer, known as TO-1, shall not exceed 11.2 pounds per hour. This condition limits the potential to emit CO to 48.9 tons per year. based on a 27,000 gallons of oxidized asphalt per nine (9) hour batch, equivalent to 48.9 tons per year.
- (b) When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test to maintain a minimum ninety percent (90%) overall control efficiency (capture and destruction) of the CO.
- 29. In order to confirm compliance with the Condition D.3.8, Condition D.3.10 has been revised as follows to require testing to confirm that the PM₁₀, VOC and CO pound per hour limits in revised Conditions D.3.5, D.3.6 and D.3.7 and clarify that testing should be done in accordance with Section C Performance Testing as follows:

D.3.8 Thermal Oxidizer Operation

The thermal oxidizer, TO-1, controlling the emissions from the knock-out tank, KO-1, shall operate at all times that the asphalt oxidizing operations are in progress. When operating, the thermal oxidizer shall maintain a minimum operating temperature of 1,200 degrees Fahrenheit or a temperature, fan amperage and duct velocity determined in a stack test **to comply with the pound per hour limits stated in Conditions D.3.5, D.3.6 and D.3.7.** to maintain a minimum ninety-four and two tenths percent (94.2%) destruction of the PM₁₀, sixty five percent (65.0%) destruction of the VOC and ninety percent (90%) destruction of the CO.

D.3.10 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

- (a) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform PM and PM₁₀ testing of the knock-out tank and thermal oxidizer utilizing Methods 5 or 17 (40 CFR 60, Appendix A) for PM and Methods 201 or 201A and 202 (40 CFR 51, Appendix M) for PM₁₀, or other methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. PM₁₀ includes filterable and condensible PM₁₀. In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance. Testing shall be conducted in accordance with Section C-Performance Testing.
- (b) During the period between 30 and 36 months after issuance of this permit, the Permittee shall perform VOC and CO testing of the thermal oxidizer exhausting through Stack TO-1 to determine the capture and destruction efficiencies for overall VOC and CO control utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C- Performance Testing.
- (b) The Permittee is not required to test the asphalt loading operation by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with any applicable rules, shall be determined by a performance test conducted in accordance with Section C Performance Testing.
- 30. Conditions D.3.13(b) and D.4.13(b) have had the word "daily" added for clarification and to be consistent with the parametric monitoring condition as follows:

D.3.13 Record Keeping Requirements

(b) To document compliance with Condition D.3.12, the Permittee shall maintain records of **daily** visible emission notations of the thermal oxidizer stack exhaust once per shift.

D.4.13 Record Keeping Requirements

- (b) To document compliance with Condition D.4.10, the Permittee shall maintain records of **daily** visible emission notations of the SB-901, SB-903 and SB-904 stack exhausts when burning Nos. 1, 2, 6 fuel oil or biofuel.
- 31. Condition D.4.14 has been revised to clarify that the report submitted by the Permittee does not require the certification by the "authorized individual" as follows:

D.4.14 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.4.7 when No. 1, No.2 or No.6 fuel oil, biofuel or natural gas was combusted, and the natural gas fired boiler certification, shall be submitted to the address listed in Section C - General Reporting Requirements, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

32. Conditions D.4.9 and D.5.4 have been deleted as follows and subsequent conditions have been renumbered

D.4.9 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing when necessary to determine if the facility is in compliance. If testing is required by IDEM, compliance with the PM and SO_2 limits specified in Conditions D.4.4, D.4.5 and D.4.6 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

Compliance Determination Requirement

D.5.4 Testing Requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

The Permittee is not required to test these facilities by this permit. However, IDEM may require compliance testing when necessary to determine if these facilities are in compliance. If testing is required by IDEM, compliance with the PM limit specified in Condition D.4.3 shall be determined by a performance test conducted in accordance with Section C - Performance Testing.

33. Condition D.4.13(a)(3) (now Condition D.12(a)(3)) has been revised to clarify that a natural gas certification does not need to be certified by an authorized individual as defined in 326 IAC 2-1.1-1(1) as follows:

D.4.13 Record Keeping Requirements

- (a) To document compliance with Conditions D.4.5 and D.4.6, the Permittee shall maintain records for steam boilers, SB-901 and SB-904, in accordance with (1) through (6) below. Note that pursuant to 40 CFR 60 Subpart Dc, the fuel oil sulfur limit applies at all times including periods of startup, shutdown, and malfunction.
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual fuel oil usage since last compliance determination period and equivalent sulfur dioxide emissions;

- (3) A certification, signed by the owner or operator, that the records of the fuel supplier certifications represent all of the fuel combusted during the period; the natural gas fired boiler certification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1); and
- 34. Emergency/Deviation Occurrence Report the rule cite 326 IAC 2-7-5(3)(c) should have been a capital C, 326 IAC 2-8-4(3)(C) and has been changed as follows:

This form consists of 2 pages

Page 1 of 2

Check either No. 1 or No.2

- 9 1. This is an emergency as defined in 326 IAC 2-7-1(12)
 - The Permittee must notify the Office of Air Management (OAM), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
 - C The Permittee must submit notice in writing or by facsimile within two (2) days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16
- 9 2. This is a deviation, reportable per 326 IAC 2-7-5(3)(c) 326 IAC 2-8-4(3)(C)
 - C The Permittee must submit notice in writing within ten (10) calendar days

35. The choice of affidavit has been added to the Certification form as follows:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Laketon Refining Corporation

Source Address: 2784 West Lukens Lake Road, Laketon, Indiana 46943 Mailing Address: PO Box 68123, Indianapolis, Indiana 46268-0123

FESOP No.: F 169-7939-00006

	This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.
	Please check what document is being certified:
9	Annual Compliance Certification Letter
9	Test Result (specify)
9	Report (specify)
9	Notification (specify)
9	Affidavit (specify)
9	Other (specify)

Date:

36. A statement has been added to the Emergency/Deviation, Natural Gas Fired Boiler Certification, Monthly Report, and Quarterly Report stating that these forms do not require a certification. The bottom of each of these forms now say "A certification is not required for this report".

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Laketon Refining Corporation 2784 West Lukens Lake Road, Laketon, Indiana 46943 Source Address: PO Box 68123, Indianapolis, Indiana 46268-0123 Mailing Address: FESOP No.: F 169-7939-00006 This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit. Report period Beginning: Ending: Boiler Affected Days burning alternate fuel Alternate Fuel From To I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature: Printed Name: Title/Position:

A certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1) is not required for this report.

37. Quarterly Compliance Monitoring Report, language was added to clarify that reporting periods are based on calendar years as follows:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR MANAGEMENT COMPLIANCE DATA SECTION

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) QUARTERLY COMPLIANCE MONITORING REPORT

	QO/II(TEI(ET OOM) E	WINDE MONTONING REF	
Source Name: Source Address: Mailing Address: FESOP No.:		oration e Road, Laketon, Indiana 469 apolis, Indiana 46268-0123	943
Mor	nths: to	Year:	
in this permit. This re the compliance monit pages may be attach	eport shall be submitted or oring requirements and the led if necessary. This for Report. If no deviations	is met all the compliance mon quarterly based on a calenda he date(s) of each deviation m orm can be supplemented by occurred, please specify in the	r year. Any deviation from ust be reported. Additional attaching the Emergency/
9 NO DEVIATIONS (OCCURRED THIS REPO	RTING PERIOD.	
9 THE FOLLOWING	DEVIATIONS OCCURR	ED THIS REPORTING PERIC	DD.
	toring Requirement condition D.1.3)	Number of Deviations	Date of each Deviation
Tit Da	rm Completed By: le/Position: ate:		
Pr	ione:		

Attach a signed certification to complete this report.

Subpart Dc-Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

8231

8231

Source: 55 FR 37683, Sept. 12, 1990, unless otherwise noted.

21287

60.40c Applicability and delegation of authority.

8231

- (a) The affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).
- (b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, 60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

24871

60.41c Definitions.

8231

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society for Testing and Materials in ASTM D388-77, ``Standard Specification for Classification of Coals by Rank" (incorporated by reference-see 60.17); coal refuse; and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat, including but not limited to solvent-refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396-78, ``Standard Specification for Fuel Oils" (incorporated by reference-see 60.17).

Dry flue gas desulfurization technology means a sulfur dioxide (SO2) control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under 60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835-86, "Standard Specification for Liquefied Petroleum Gases" (incorporated by reference-see 60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO2 emissions (nanograms per joule [ng/J], or pounds per million

Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396-78, "Standard Specification for Fuel Oils" (incorporated by reference-see 60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO2 control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or SO2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

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60.42c Standard for sulfur dioxide.

- (a) Except as provided in paragraphs (b), (c), and (e) of this section, on and after the date on which the initial performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, the owner the operator of an affected facility that combusts only coal shall neither: (1) cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 10 percent (0.10) of the potential SO2 emission rate (90 percent reduction); nor (2) cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 90 percent SO2 reduction requirement specified in this paragraph and the emission limit is determined pursuant to paragraph (e)(2) of this section.
- (b) Except as provided in paragraphs (c) and (e) of this section, on and after the date on which the initial performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, the owner or operator of an

affected facility that:

- (1) Combusts coal refuse alone in a fluidized bed combustion steam generating unit shall neither:
- (i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 20 percent (0.20) of the potential SO2 emission rate (80 percent reduction);
- (ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 520 ng/J (1.2 lb/million Btu) heat input. If coal is fired with coal refuse, the affected facility is subject to paragraph (a) of this section. If oil or any other fuel (except coal) is fired with coal refuse, the affected facility is subject to the 90 percent SO2 reduction requirement specified in paragraph (a) of this section and the emission limit determined pursuant to paragraph (e)(2) of this section.
- (2) Combusts only coal and that uses an emerging technology for the control of SO2 emissions shall neither:
- (i) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 50 percent (0.50) of the potential SO2 emission rate (50 percent reduction); nor
- (ii) Cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 260 ng/J (0.60 lb/million Btu) heat input. If coal is combusted with other fuels, the affected facility is subject to the 50 percent SO2 reduction requirement specified in this paragraph and the emission limit determined pursuant to paragraph (e)(2) of this section.
- (c) On and after the date on which the initial performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, alone or in combination with any other fuel, and is listed in paragraphs (c)(1), (2), (3), or (4) of this section shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of the emission limit determined pursuant to paragraph (e)(2) of this section. Percent reduction requirements are not applicable to affected facilities under this paragraph.
- (1) Affected facilities that have a heat input capacity of 22 MW (75 million Btu/hr) or less.
- (2) Affected facilities that have an annual capacity for coal of 55 percent (0.55) or less and are subject to a Federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for coal of 55 percent (0.55) or less.
- (3) Affected facilities located in a noncontinental area.
- (4) Affected facilities that combust coal in a duct burner as part of a combined cycle system where 30 percent (0.30) or less of the heat entering the steam generating unit is from combustion of coal in the duct burner and 70 percent (0.70) or more of the heat entering the steam generating unit is from exhaust gases entering the duct burner.
- (d) On and after the date on which the initial performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts oil shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of 215 ng/J (0.50 lb/million Btu) heat input; or, as an alternative, no owner or operator of an affected facility that combusts oil shall combust oil in the affected facility that contains greater than 0.5 weight

percent sulfur. The percent reduction requirements are not applicable to affected facilities under this paragraph.

- (e) On and after the date on which the initial performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, or coal and oil with any other fuel shall cause to be discharged into the atmosphere from that affected facility any gases that contain SO2 in excess of the following:
- (1) The percent of potential SO2 emission rate required under paragraph (a) or (b)(2) of this section, as applicable, for any affected facility that
- (i) Combusts coal in combination with any other fuel,
- (ii) Has a heat input capacity greater than 22 MW (75 million Btu/hr), and
- (iii) Has an annual capacity factor for coal greater than 55 percent (0.55); and
- (2) The emission limit determined according to the following formula for any affected facility that combusts coal, oil, or coal and oil with any other fuel:

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Es=(KaHa+KbHb+KcHc)/Ha+Hb+Hc)

where:

Es is the SO2 emission limit, expressed in ng/J or lb/million Btu heat input,

Ka is 520 ng/J (1.2 lb/million Btu),

Kb is 260 ng/J (0.60 lb/million Btu),

Kc is 215 ng/J (0.50 lb/million Btu),

Ha is the heat input from the combustion of coal, except coal combusted in an affected facility subject to paragraph (b)(2) of this section, in Joules (J) [million Btu]

Hb is the heat input from the combustion of coal in an affected facility subject to paragraph (b)(2) of this section, in J (million Btu)

Hc is the heat input from the combustion of oil, in J (million Btu).

- (f) Reduction in the potential SO2 emission rate through fuel pretreatment is not credited toward the percent reduction requirement under paragraph (b)(2) of this section unless:
- (1) Fuel pretreatment results in a 50 percent (0.50) or greater reduction in the potential SO2 emission rate; and
- (2) Emissions from the pretreated fuel (without either combustion or post-combustion SO2 control) are equal to or less than the emission limits specified under paragraph (b)(2) of this section.
- (g) Except as provided in paragraph (h) of this section, compliance with the percent reduction requirements, fuel oil sulfur limits, and emission limits of this section shall be determined on a 30-day rolling average basis.
- (h) For affected facilities listed under paragraphs (h)(1),
- (2), or (3) of this section, compliance with the emission limits or fuel oil sulfur limits under this section may be determined based on a certification from the fuel supplier, as described under 60.48c(f)(1), (2), or (3), as applicable.
- (1) Distillate oil-fired affected facilities with heat input capacities between 2.9 and 29 MW (10 and 100 million Btu/hr).
- (2) Residual oil-fired affected facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).
- (3) Coal-fired facilities with heat input capacities between 2.9 and 8.7 MW (10 and 30 million Btu/hr).
- (i) The SO2 emission limits, fuel oil sulfur limits, and percent reduction requirements under this section apply at all times,

including periods of startup, shutdown, and malfunction.

(j) Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from wood or other fuels or for heat derived from exhaust gases from other sources, such as stationary gas turbines, internal combustion engines, and kilns.

25383

60.43c Standard for particulate matter.

8231

- (a) On and after the date on which the initial performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or combusts mixtures of coal with other fuels and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emission limits:
- (1) 22 ng/J (0.05 lb/million Btu) heat input if the affected facility combusts only coal, or combusts coal with other fuels and has an annual capacity factor for the other fuels of 10 percent (0.10) or less.
- (2) 43 ng/J (0.10 lb/million Btu) heat imput if the affected facility combusts coal with other fuels, has an annual capacity factor for the other fuels greater than 10 percent (0.10), and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor greater than 10 percent (0.10) for fuels other than coal.
- (b) On and after the date on which the initial performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts wood or combusts mixtures of wood with other fuels (except coal) and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater, shall cause to be discharged into the atmosphere from that affected facility any gases that contain PM in excess of the following emissions limits:
- (1) 43 ng/J (0.10 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood greater than 30 percent (0.30); or
- (2) 130 ng/J (0.30 lb/million Btu) heat input if the affected facility has an annual capacity factor for wood of 30 percent (0.30) or less and is subject to a federally enforceable requirement limiting operation of the affected facility to an annual capacity factor for wood of 30 percent (0.30) or less.
- (c) On and after the date on which the initial performance test is completed or required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, wood, or oil and has a heat input capacity of 8.7 MW (30 million Btu/hr) or greater shall cause to be discharged into the atmosphere from that affected facility any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.
- (d) The PM and opacity standards under this section apply at all times, except during periods of startup, shutdown, or malfunction.

27943

60.44c Compliance and performance test methods and procedures for sulfur dioxide.

8231

(a) Except as provided in paragraphs (g) and (h) of this section

and in 60.8(b), performance tests required under 60.8 shall be conducted following the procedures specified in paragraphs (b), (c), (d), (e), and (f) of this section, as applicable. Section 60.8(f) does not apply to this section. The 30-day notice required in 60.8(d) applies only to the initial performance test unless otherwise specified by the Administrator.

- (b) The initial performance test required under 60.8 shall be conducted over 30 consecutive operating days of the steam generating unit. Compliance with the percent reduction requirements and SO2 emission limits under 60.42c shall be determined using a 30-day average. The first operating day included in the initial performance test shall be scheduled within 30 days after achieving the maximum production rate at which the affect facility will be operated, but not later than 180 days after the initial startup of the facility. The steam generating unit load during the 30-day period does not have to be the maximum design heat input capacity, but must be representative of future operating conditions.
- (c) After the initial performance test required under paragraph (b) and 60.8, compliance with the percent reduction requirements and SO2 emission limits under 60.42c is based on the average percent reduction and the average S02 emission rates for 30 consecutive steam generating unit operating days. A separate performance test is completed at the end of each steam generating unit operating day, and a new 30-day average percent reduction and SO2 emission rate are calculated to show compliance with the standard.
- (d) If only coal, only oil, or a mixture of coal and oil is combusted in an affected facility, the procedures in Method 19 are used to determine the hourly SO2 emission rate (Eho) and the 30-day average SO2 emission rate (Eao). The hourly averages used to compute the 30-day averages are obtained from the continuous emission monitoring system (CEMS). Method 19 shall be used to calculate Eao when using daily fuel sampling or Method 6B.
- (e) If coal, oil, or coal and oil are combusted with other fuels:

26151

(1) An adjusted Eho (Ehoo) is used in Equation 19-19 of Method 19 to compute the adjusted Eao (Eaoo). The Ehoo is computed using the following formula:

29991

Ehoo=[Eho-Ew(1-Xk)]/Xk

where:

Ehoo is the adjusted Eho, ng/J (lb/million Btu)

Eho is the hourly SO2 emission rate, ng/J (lb/million Btu)
Ew is the SO2 concentration in fuels other than coal and
oil combusted in the affected facility, as determined by
fuel sampling and analysis procedures in Method 9, ng/J
(lb/million Btu). The value Ew for each fuel lot is used
for each hourly average during the time that the lot is
being combusted. The owner or operator does not have to
measure Ew if the owner or operator elects to assume Ew=0.

Xk is the fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19.

- (2) The owner or operator of an affected facility that qualifies under the provisions of 60.42c(c) or (d) [where percent reduction is not required] does not have to measure the parameters Ew or Xk if the owner or operator of the affected facility elects to measure emission rates of the coal or oil using the fuel sampling and analysis procedures under Method 19.
- (f) Affected facilities subject to the percent reduction requirements

under 60.42c(a) or (b) shall determine compliance with the SO2 emission limits under 60.42c pursuant to paragraphs (d) or (e) of this section, and shall determine compliance with the percent reduction requirements using the following procedures:

(1) If only coal is combusted, the percent of potential SO2 emission rate is computed using the following formula: 25895

%Ps=100(1-%Rg/100)(1-%Rf/100)

where

%Ps is the percent of potential SO2 emission rate, in percent %Rg is the SO2 removal efficiency of the control device as determined by Method 19, in percent

%Rf is the SO2 removal efficiency of fuel pretreatment as determined by Method 19, in percent 8231

- (2) If coal, oil, or coal and oil are combusted with other fuels, the same procedures required in paragraph (f)(1) of this section are used, except as provided for in the following:
- (i) To compute the %Ps, an adjusted %Rg (%Rgo) is computed from Eaoo from paragraph (e)(1) of this section and an adjusted average SO2 inlet rate (Eaio) using the following formula:

24871

%Rgo=100 [1.0-Eaoo/Eaio)]

where:

%Rgo is the adjusted %Rg, in percent

Eaoo is the adjusted Eao, ng/J (lb/million Btu)

Eaio is the adjusted average SO2 inlet rate, ng/J (lb/million Btu)

8231

(ii) To compute Eaio, an adjusted hourly SO2 inlet rate (Ehio) is used. The Ehio is computed using the following formula: 26919

Ehio=[Ehi-Ew (1-Xk)]/Xk

where:

Ehio is the adjusted Ehi, ng/J (lb/million Btu)

Ehi is the hourly SO2 inlet rate, ng/J (lb/million Btu)

Ew is the SO2 concentration in fuels other than coal and oil combusted in the affected facility, as determined by fuel sampling and analysis procedures in Method 19, ng/J (lb/million Btu). The value Ew for each fuel lot is used for each hourly average during the time that the lot is being combusted. The owner or operator does not have to measure Ew if the owner or operator elects to assume Ew = O.

Xk is the fraction of the total heat input from fuel combustion derived from coal and oil, as determined by applicable procedures in Method 19.

- (g) For oil-fired affected facilities where the owner or operator seeks to demonstrate compliance with the fuel oil sulfur limits under 60.42c based on shipment fuel sampling, the initial performance test shall consist of sampling and analyzing the oil in the initial tank of oil to be fired in the steam generating unit to demonstrate that the oil contains 0.5 weight percent sulfur or less. Thereafter, the owner or operator of the affected facility shall sample the oil in the fuel tank after each new shipment of oil is received, as described under 60.46c(d)(2).
- (h) For affected facilities subject to 60.42c(h)(1), (2), or (3) where the owner or operator seeks to demonstrate compliance with the SO2 standards based on fuel supplier certification, the performance test shall consist of the certification, the certification from the fuel supplier, as described under 60.48c(f)(1),

- (2), or (3), as applicable.
- (i) The owner or operator of an affected facility seeking to demonstrate compliance with the SO2 standards under 60.42c(c)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour averaged firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.
- (j) The owner or operator of an affected facility shall use all valid SO2 emissions data in calculating %Ps and Eho under paragraphs (d), (e), or (f) of this section, as applicable, whether or not the minimum emissions data requirements under 60.46c(f) are achieved. All valid emissions data, including valid data collected during periods of startup, shutdown, and malfunction, shall be used in calculating %Ps or Eho pursuant to paragraphs (d), (e), or (f) of this section, as applicable.
- 60.45c Compliance and performance test methods and procedures for particulate matter.

- (a) The owner or operator of an affected facility subject to the PM and/or opacity standards under 60.43c shall conduct an initial performance test as required under 60.8, and shall conduct subsequent performance tests as requested by the Administrator, to determine compliance with the standards using the following procedures and reference methods.
- (1) Method 1 shall be used to select the sampling site and the number of traverse sampling points. The sampling time for each run shall be at least 120 minutes and the minimum sampling volume shall be 1.7 dry square cubic meters (dscm) [60 dry square cubic feet (dscf)] except that smaller sampling times or volumes may be approved by the Administrator when necessitated by process variables or other factors.
- (2) Method 3 shall be used for gas analysis when applying Method 5, Method 5B, of Method 17.
- (3) Method 5, Method 5B, or Method 17 shall be used to measure the concentration of PM as follows:
- (i) Method 5 may be used only at affected facilities without wet scrubber systems.
- (ii) Method 17 may be used at affected facilities with or without wet scrubber systems provided the stack gas temperature does not exceed a temperature of 160 C (320 F). The procedures of Sections 2.1 and 2.3 of Method 5B may be used in Method 17 only if Method 17 is used in conjuction with a wet scrubber system. Method 17 shall not be used in conjuction with a wet scrubber system if the effluent is saturated or laden with water droplets.
- (iii) Method 5B may be used in conjunction with a wet scrubber system.
- (4) For Method 5 or Method 5B, the temperature of the sample gas in the probe and filter holder shall be monitored and maintained at 160 C (320 F).
- (5) For determination of PM emissions, an oxygen or carbon dioxide measurement shall be obtained simultaneously with each run of Method 5, Method 5B, or Method 17 by traversing the duct at the same sampling location.

- (6) For each run using Method 5, Method 5B, or Method 17, the emission rates expressed in ng/J (lb/million Btu) heat input shall be determined using:
- (i) The oxygen or carbon dioxide measurements and PM measurements obtained under this section,
- (ii) The dry basis F-factor, and
- (iii) The dry basis emission rate calculation procedure contained in Method 19 (appendix A).
- (7) Method 9 (6-minute average of 24 observations) shall be used for determining the opacity of stack emissions.
- (b) The owner or operator of an affected facility seeking to demonstrate compliance with the PM standards under 60.43c(b)(2) shall demonstrate the maximum design heat input capacity of the steam generating unit by operating the steam generating unit at this capacity for 24 hours. This demonstration shall be made during the initial performance test, and a subsequent demonstration may be requested at any other time. If the demonstrated 24-hour average firing rate for the affected facility is less than the maximum design heat input capacity stated by the manufacturer of the affected facility, the demonstrated 24-hour average firing rate shall be used to determine the annual capacity factor for the affected facility; otherwise, the maximum design heat input capacity provided by the manufacturer shall be used.
- 60.46c Emission monitoring for sulfur dioxide 8231
- (a) Except as provided in paragraphs (d) and (e) of this section, the owner or operator of an affected facility subject to the SO2 emission limits under 60.42c shall install, calibrate, maintain, and operate a CEMS for measuring SO2 concentrations and either oxygen or carbon dioxide concentrations at the outlet of the SO2 control device (or the outlet of the steam generating unit if no SO2 control device is used), and shall record the output of the system. The owner or operator of an affected facility subject to the percent reduction requirements under 60.42c shall measure SO2 concentrations and either oxygen or carbon dioxide concentrations at both the inlet and outlet of the SO2 control device.
- (b) The 1-hour average SO2 emission rates measured by a CEM shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission rates under 60.42c. Each 1-hour average SO2 emission rate must be based on at least 30 minutes of operation and include at least 2 data points representing two 15-minute periods. Hourly SO2 emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.
- (c) The procedures under 60.13 shall be followed for installation, evaluation, and operation of the CEMS.
- (1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (Appendix B).
- (2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (Appendix F).
- (3) For affected facilities subject to the percent reduction requirements under 60.42c, the span value of the SO2 CEMS at the inlet to the SO2 control device shall be 125 percent of the maximum estimated hourly potential SO2 emission rate of the fuel combusted, and the span value of the SO2 CEMS at the outlet from the SO2 control device shall be 50 percent of the maximum estimated hourly potential SO2 emission rate of

the fuel combusted.

- (4) For affected facilities that are not subject to the percent reduction requirements of 60.42c, the span value of the SO2 CEMS at the outlet from the SO2 control device (or outlet of the steam generating unit if no SO2 control device is used) shall be 125 percent of the maximum estimated hourly potential SO2 emission rate of the fuel combusted.
- (d) As an alternative to operating a CEMS at the inlet to the SO2 control device (or outlet of the steam generating unit if no SO2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO2 emission rate by sampling the fuel prior to combustion. As an alternative to operating a CEM at the outlet from the SO2 control device (or outlet of the steam generating unit if no SO2 control device is used) as required under paragraph (a) of this section, an owner or operator may elect to determine the average SO2 emission rate by using Method 6B. Fuel sampling shall be conducted pursuant to either paragraph (d)(1) or (d)(2) of this section. Method 6B shall be conducted pursuant to paragraph (d)(3) of this section.
- (1) For affected facilities combusting coal or oil, coal or oil samples shall be collected daily in an as-fired condition at the inlet to the steam generating unit and analyzed for sulfur content and heat content according the Method 19. Method 19 provides procedures for converting these measurements into the format to be used in calculating the average SO2 input rate.
- (2) As an alternative fuel sampling procedure for affected facilities combusting oil, oil samples may be collected from the fuel tank for each steam generating unit immediately after the fule tank is filled and before any oil is combusted. The owner or operator of the affected facility shall analyze the oil sample to determine the sulfur content of the oil. If a partially empty fuel tank is refilled, a new sample and analysis of the fuel in the tank would be required upon filling. Results of the fuel analysis taken after each new shipment of oil is received shall be used as the daily value when calculating the 30-day rolling average until the next shipment is received. If the fuel analysis shows that the sulfur content in the fuel tank is greater than 0.5 weight percent sulfur, the owner or operator shall ensure that the sulfur content of subsequent oil shipments is low enough to cause the 30-day rolling average sulfur content to be 0.5 weight percent sulfur or less.

- (3) Method 6B may be used in lieu of CEMS to measure SO2 at the inlet or outlet of the SO2 control system. An initial stratification test is required to verify the adequacy of the Method 6B sampling location. The stratification test shall consist of three paired runs of a suitable SO2 and carbon dioxide measurement train operated at the candidate location and a second similar train operated according to the procedures in 3.2 and the applicable procedures in section 7 of Performance Specification 2 (Appendix B). Method 6B, Method 6A, or a combination of Methods 6 and 3 or Methods 6C and 3A are suitable measurement techniques. If Method 6B is used for the second train, sampling time and timer operation may be adjusted for the stratification test as long as an adequate sample volume is collected; however, both sampling trains are to be operated similarly. For the location to be adequate for Method 6B 24-hour tests, the mean of the absolute difference between the three paired runs must be less than 10 percent (0.10).
- (e) The monitoring requirements of paragraphs (a) and (d) of this section shall not apply to affected facilities subject

- to 60.42c(h) (1), (2), or (3) where the owner or operator of the affected facility seeks to demonstrate compliance with the SO2 standards based on fuel supplier certification, as described under 60.48c(f) (1), (2), or (3), as applicable.
- (f) The owner or operator of an affected facility operating a CEMS pursuant to paragraph (a) of this section, or conducting as-fired fuel sampling pursuant to paragraph (d)(1) of this section, shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive steam generating unit operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator.

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- 60.47c Emission monitoring for particulate matter. 8231
- (a) The owner or operator of an affected facility combusting coal, residual oil, or wood that is subject to the opacity standards under 60.43c shall install, calibrate, maintain, and operate a CEMS for measuring the opacity of the emissions discharged to the atmosphere and record the output of the system.
- (b) All CEMS for measuring opacity shall be operated in accordance with the applicable procedures under Performance Specification 1 (appendix B). The span value of the opacity CEMS shall be between 60 and 80 percent.

- 60.48c Reporting and recordkeeping requirements. 8231
- (a) The owner or operator of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by 60.7 of this part. This notification shall include:
- (1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.
- (2) If applicable, a copy of any Federally enforceable requirement that limits the annual capacity factor for any fuel or mixture of fuels under 60.42c, or 60.43c.
- (3) The annual capacity factor at which the owner or operator anticipates operating the affected facility based on all fuels fired and based on each individual fuel fired.
- (4) Notification if an emerging technology will be used for controlling SO2 emissions. The Administrator will examine the description of the control device and will determine whether the technology qualifies as an emerging technology. In making this determination, the Administrator may require the owner or operator of the affected facility to submit additional information concerning the control device. The affected facility is subject to the provisions of 60.42c(a) or (b)(1), unless and until this determination is made by the Administrator.
- (b) The owner or operator of each affected facility subject to the SO2 emission limits of 60.42c, or the PM or opacity limits of 60.43c, shall submit to the Administrator the performance test data from the initial and any subsequent performance tests and, if applicable, the performance evaluation of the CEMS using the applicable performance specifications in appendix B.

- (c) The owner or operator of each coal-fired, residual oilfired, or wood-fired affected facility subject to the opacity limits under 60.43c(c) shall submit excess emission reports for any calendar quarter for which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissioins occurred during the semiannual reporting period. The initial quarterly report shall be postmarked by the 30th day of the third month following the completion of the initial performance test, unless no excess emissions occur during that quarter. The initial semiannual report shall be postmarked by the 30th day of the sixth month following the completion of the initial performance test, or following the date of the previous quarterly report, as applicable. Each subsequent guarterly or semiannual report shall be postmarked by the 30th day following the end of the reporting period.
- (d) The owner or operator of each affected facility subject to the SO2 emission limits, fuel oil sulfur limits, or percent reduction requirements under 60.42c shall submit quarterly reports to the Administrator. The initial quarterly report shall be postmarked by the 30th day of the third month following the completion of the initial performance test. Each subsequenty quarterly report shall be postmarked by the 30th day following the end of the reporting period.
- (e) The owner or operator of each affected facility subject to the SO2 emission limits, fuel oil sulfur limits, or percent reduction requirements under 60.43c shall keep records and submit quarterly reports as required under paragraph (d) of this section, including the following information, as applicable.
- (1) Calendar dates covered in the reporting period.
- (2) Each 30-day average SO2 emission rate (ng/J or lb/million Btu), or 30-day average sulfur content (weight percent), calculated during the reporting period, ending with the last 30-day period in the quarter; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.
- (3) Each 30-day average percent of potential SO2 emission rate calculated during the reporting period, ending with the last 30-day period in the quarter; reasons for any noncompliance with the emission standards; and a description of corrective actions taken.
- (4) Identification of any steam generating unit operating days for which SO2 or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours; justification for not obtaining sufficient data; and a description of corrective actions taken.
- (5) Identification of any times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and a description of corrective actions taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.
- (6) Identification of the F factor used in calculations, method of determination, and type of fuel combusted.
- (7) Identification of whether averages have been obtained based on CEMS rather than manual sampling methods.
- (8) If a CEMS is used, identification of any times when the pollutant concentration exceeded the full span of the CEMS.
- (9) If a CEMS is used, description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specifications 2 or 3 (appendix B).
- (10) If a CEMS is used, results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix

F, Procedure 1.

(11) If fuel supplier certification is used to demonstrate compliance, records of fuel supplier certification as described under paragraph (f)(1), (2), or (3) of this section, as applicable. In addition to records of fuel supplier certifications, the quarterly report shall include a certified statement signed by the owner or operator of the affected facility that the records of fuel supplier certifications submitted represent all of the fuel combusted during the quarter.

- (f) Fuel supplier certification shall include the following information:
- (1) For distillate oil:
- (i) The name of the oil supplier; and
- (ii) A statement from the oil supplier that the oil complies with the specifications under the definition of distillate oil in 60.41c.
- (2) For residual oil:
- (i) The name of the oil supplier;
- (ii) The location of the oil when the sample was drawn for analysis to determine the sulfur content of the oil, specifically including whether the oil was sampled as delivered to the affected facility, or whether the sample was drawn from oil in storage at the oil supplier's or oil refiner's facility, or other location;
- (iii) The sulfur content of the oil from which the shipment came (or of the shipment itself); and
- (iv) The method used to determine the sulfur content of the oil.
- (3) For coal:
- (i) The name of the coal supplier;
- (ii) The location of the coal when the sample was collected for analysis to determine the properties of the coal, specifically including whether the coal was sampled as delivered to the affected facility or whether the sample was collected from coal in storage at the mine, at a coal preparation plant, at a coal supplier's facility, or at another location. The certification shall include the name of the coal mine (and coal seam), coal storage facility, or coal preparation plant (where the sample was collected);
- (iii) The results of the analysis of the coal from which the shipment came (or of the shipment itself) including the sulfur content, moisture content, ash content, and heat content; and
- (iv) The methods used to determine the properties of the coal.
- (g) The owner or operator of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day.
- (h) The owner or operator of each affected facility subject to a Federally enforceable requirement limiting the annual capacity factor for any fuel or mixture of fuels under 60.42c or 60.43c shall calculate the annual capacity factor individually for each fuel combusted. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of the calendar month.
- (i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

Subpart Kb-Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984

8231 8231

Source: 52 FR 11429, Apr. 8, 1987, unless otherwise noted.

21287

- 60.110b Applicability and designation of affected facility. 8231
- (a) Except as provided in paragraphs (b), (c), and (d) of this section, the affected facility to which this subpart applies is each storage vessel with a capacity greater than or equal to 40 cubic meters (m3) that is used to store volatile organic liquids (VOL's) for which construction, reconstruction, or modification is commenced after July 23, 1984.
- (b) Except as specified in paragraphs (a) and (b) of 60.116b, storage vessels with design capacity less than 75 m3 are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart.
- (c) Except as specified in paragraphs (a) and (b) of 60.116b, vessels either with a capacity greater than or equal to 151 m3 storing a liquid with a maximum true vapor pressure less than 3.5 kPa or with a capacity greater than or equal to 75 m3 but less than 151 m3 storing a liquid with a maximum true vapor pressure less than 15.0 kPa are exempt from the General Provisions (part 60, subpart A) and from the provisions of this subpart.
- (d) This subpart does not apply to the following:
- (1) Vessels at coke oven by-product plants.
- (2) Pressure vessels designed to operate in excess of 204.9 kPa and without emissions to the atmosphere.
- (3) Vessels permanently attached to mobile vehicles such as trucks, railcars, barges, or ships.
- (4) Vessels with a design capacity less than or equal to 1,589.874 m3 used for petroleum or condensate stored, processed, or treated prior to custody transfer.
 - (5) Vessels located at bulk gasoline plants.
 - (6) Storage vessels located at gasoline service stations.
 - (7) Vessels used to store beverage alcohol.

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[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug.

11, 1989]

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60.111b Definitions.

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Terms used in this subpart are defined in the Act, in subpart A of this part, or in this subpart as follows:

- (a) Bulk gasoline plant means any gasoline distribution facility that has a gasoline throughput less than or equal to 75,700 liters per day. Gasoline throughput shall be the maximum calculated design throughput as may be limited by compliance with an enforceable condition under Federal requirement or Federal, State or local law, and discoverable by the Administrator and any other person.
- (b) Condensate means hydrocarbon liquid separated from natural gas that condenses due to changes in the temperature or pressure, or both, and remains liquid at standard conditions.
- (c) Custody transfer means the transfer of produced petroleum and/or condensate, after processing and/or treatment in the producing operations, from storage vessels or automatic transfer facilities to pipelines or any other forms of transportation.
- (d) Fill means the introduction of VOL into a storage vessel

but not necessarily to complete capacity.

- (e) Gasoline service station means any site where gasoline is dispensed to motor vehicle fuel tanks from stationary storage tanks.
- (f) Maximum true vapor pressure means the equilibrium partial pressure exerted by the stored VOL at the temperature equal to the highest calendar-month average of the VOL storage temperature for VOL's stored above or below the ambient temperature or at the local maximum monthly average temperature as reported by the National Weather Service for VOL's stored at the ambient temperature, as determined:
- (1) In accordance with methods described in American Petroleum institute Bulletin 2517, Evaporation Loss From External Floating Roof Tanks, (incorporated by reference-see 60.17); or
- (2) As obtained from standard reference texts; or
- (3) As determined by ASTM Method D2879-83 (incorporated by reference-see 60.17);
- (4) Any other method approved by the Administrator.
- (g) Reid vapor pressure means the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids except liquified petroleum gases, as determined by ASTM D323-82 (incorporated by reference-see 60.17).
- (h) Petroleum means the crude oil removed from the earth and the oils derived from tar sands, shale, and coal.
- (i) Petroleum liquids means petroleum, condensate, and any finished or intermediate products manufactured in a petroleum refinery.
- (j) Storage vessel means each tank, reservoir, or container used for the storage of volatile organic liquids but does not include:
- (1) Frames, housing, auxiliary supports, or other components that are not directly involved in the containment of liquids or vapors; or
- (2) Subsurface caverns or porous rock reservoirs.
- (k) Volatile organic liquid (VOL) means any organic liquid which can emit volatile organic compounds into the atmosphere except those VOL's that emit only those compounds which the Administrator has determined do not contribute appreciably to the formation of ozone. These compounds are identified in EPA statements on ozone abatement policy for SIP revisions (42 FR 35314, 44 FR 32042, 45 FR 32424, and 45 FR 48941).
- (I) Waste means any liquid resulting from industrial, commercial, mining or agricultural operations, or from community activities that is discarded or is being accumulated, stored, or physically, chemically, or biologically treated prior to being discarded or recycled.

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[52 FR 11429, Apr. 8, 1987, as amended at 54 FR 32973, Aug. 11, 1989]

- 60.112b Standard for volatile organic compounds (VOC). 8231
- (a) The owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 5.2 kPa but less than 76.6 kPa or with a design capacity greater than or equal to 75 m3 but less than 151 m3 containing a VOL that, as stored, has a maximum true vapor pressure equal to or greater than 27.6 kPa but less than 76.6 kPa, shall equip each storage vessel with one of the following:
- (I) A fixed roof in combination with an internal floating roof meeting the following specifications:

- (i) The internal floating roof shall rest or float on the liquid surface (but not necessarily in complete contact with it) inside a storage vessel that has a fixed roof. The internal floating roof shall be floating on the liquid surface at all times, except during initial fill and during those intervals when the storage vessel is completely emptied or subsequently emptied and refilled. When the roof is resting on the leg supports, the process of filling, emptying, or refilling shall be continuous and shall be accomplished as rapidly as possible.
- (ii) Each internal floating roof shall be equipped with one of the following closure devices between the wall of the storage vessel and the edge of the internal floating roof:
- (A) A foam-or liquid-filled seal mounted in contact with the liquid (liquid-mounted seal). A liquid-mounted seal means a foam-or liquid-filled seal mounted in contact with the liquid between the wall of the storage vessel and the floating roof continuously around the circumference of the tank.
- (B) Two seals mounted one above the other so that each forms a continuous closure that completely covers the space between the wall of the storage vessel and the edge of the internal floating roof. The lower seal may be vapor-mounted, but both must be continuous.
- (C) A mechanical shoe seal. A mechanical shoe seal is a metal sheet held vertically against the wall of the storage vessel by springs or weighted levers and is connected by braces to the floating roof. A flexible coated fabric (envelope) spans the annular space between the metal sheet and the floating roof.
- (iii) Each opening in a noncontact internal floating roof except for automatic bleeder vents (vacuum breaker vents) and the rim space vents is to provide a projection below the liquid surface.
- (iv) Each opening in the internal floating roof except for leg sleeves, automatic bleeder vents, rim space vents, column wells, ladder wells, sample wells, and stub drains is to be equipped with a cover or lid which is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. The cover or lid shall be equipped with a gasket. Covers on each access hatch and automatic gauge float well shall be bolted except when they are in use.
- (v) Automatic bleeder vents shall be equipped with a gasket and are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports.
- (vi) Rim space vents shall be equipped with a gasket and are to be set to open only when the internal floating roof is not floating or at the manufacturer's recommended setting.
- (vii) Each penetration of the internal floating roof for the purpose of sampling shall be a sample well. The sample well shall have a slit fabric cover that covers at least 90 percent of the opening.
- (viii) Each penetration of the internal floating roof that allows for passage of a column supporting the fixed roof shall have a flexible fabric sleeve seal or a gasketed sliding cover.
- (ix) Each penetration of the internal floating roof that allows for passage of a ladder shall have a gasketed sliding cover.
- (2) An external floating roof. An external floating roof means a pontoon-type or double-deck type cover that rests on the liquid surface in a vessel with no fixed roof. Each external floating roof must meet the following specifications:
- (i) Each external floating roof shall be equipped with a closure device between the wall of the storage vessel and the roof edge. The closure device is to consist of two seals, one above the

other. The lower seal is referred to as the primary seal, and the upper seal is referred to as the secondary seal.

- (A) The primary seal shall be either a mechanical shoe seal or a liquid-mounted seal. Except as provided in 60.113b(b)(4), the seal shall completely cover the annular space between the edge of the floating roof and tank wall.
- (B) The secondary seal shall completely cover the annular space between the external floating roof and the wall of the storage vessel in a continuous fashion except as allowed in 60.113b(b)(4).
- (ii) Except for automatic bleeder vents and rim space vents. each opening in a noncontact external floating roof shall provide a projection below the liquid surface. Except for automatic bleeder vents, rim space vents, roof drains, and leg sleeves, each opening in the roof is to be equipped with a gasketed cover, seal, or lid that is to be maintained in a closed position at all times (i.e., no visible gap) except when the device is in actual use. Automatic bleeder vents are to be closed at all times when the roof is floating except when the roof is being floated off or is being landed on the roof leg supports. Rim vents are to be set to open when the roof is being floated off the roof legs supports or at the manufacturer's recommended setting. Automatic bleeder vents and rim space vents are to be gasketed. Each emergency roof drain is to be provided with a slotted membrane fabric cover that covers at least 90 percent of the area of the opening.
- (iii) The roof shall be floating on the liquid at all times (i.e., off the roof leg supports) except during initial fill until the roof is lifted off leg supports and when the tank is completely emptied and subsequently refilled. The process of filling, emptying, or refilling when the roof is resting on the leg supports shall be continuous and shall be accomplished as rapidly as possible.
- (3) A closed vent system and control device meeting the following specifications:
- (i) The closed vent system shall be designed to collect all VOC vapors and gases discharged from the storage vessel and operated with no detectable emissions as indicated by an instrument reading of less than 500 ppm above background and visual inspections, as determined in part 60, subpart VV, 60.485(b).
- (ii) The control device shall be designed and operated to reduce inlet VOC emissions by 95 percent or greater. If a flare is used as the control device, it shall meet the specifications described in the general control device requirements (60.18) of the General Provisions.
- (4) A system equivalent to those described in paragraphs (a)(1), (a)(2), or (a)(3) of this section as provided in 60.114b of this subpart.
- (b) The owner or operator of each storage vessel with a design capacity greater than or equal to 75 m3 which contains a VOL that, as stored, has a maximum true vapor pressure greater than or equal to 76.6 kPa shall equip each storage vessel with one of the following:
- (1) A closed vent system and control device as specified in 60.112b(a)(3).
- (2) A system equivalent to that described in paragraph (b)(1) as provided in 60.114b of this subpart.

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60.113b Testing and procedures.

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The owner or operator of each storage vessel as specified in 60.112b(a) shall meet the requirements of paragraph (a),

- (b), or (c) of this section. The applicable paragraph for a particular storage vessel depends on the control equipment installed to meet the requirements of 60.112b.
- (a) After installing the control equipment required to meet 60.112b(a)(1) (permanently affixed roof and internal floating roof), each owner or operator shall:
- (1) Visually inspect the internal floating roof, the primary seal, and the secondary seal (if one is in service), prior to filling the storage vessel with VOL. If there are holes, tears, or other openings in the primary seal, the secondary seal, or the seal fabric or defects in the internal floating roof, or both, the owner or operator shall repair the items before filling the storage vessel.
- (2) For Vessels equipped with a liquid-mounted or mechanical shoe primary seal, visually inspect the internal floating roof and the primary seal or the secondary seal (if one is in service) through manholes and roof hatches on the fixed roof at least once every 12 months after initial fill. If the internal floating roof is not resting on the surface of the VOL inside the storage vessel, or there is liquid accumulated on the roof, or the seal is detached, or there are holes or tears in the seal fabric, the owner or operator shall repair the items or empty and remove the storage vessel from service within 45 days. If a failure that is detected during inspections required in this paragraph cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 60.115b(a)(3). Such a request for an extension must document that alternate storage capacity is unavailable and specify a schedule of actions the company will take that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
- (3) For vessels equipped with a double-seal system as specified in 60.112b(a)(1)(ii)(B):
- (i) Visually inspect the vessel as specified in paragraph (a)(4) of this section at least every 5 years; or
- (ii) Visually inspect the vessel as specified in paragraph (a)(2) of this section.
- (4) Visually inspect the internal floating roof, the primary seal, the secondary seal (if one is in service), gaskets, slotted membranes and sleeve seals (if any) each time the storage vessel is emptied and degassed. If the internal floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears. or other openings in the seal or the seal fabric, or the gaskets no longer close off the liquid surfaces from the atmosphere, or the slotted membrane has more than 10 percent open area, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before refilling the storage vessel with VOL. In no event shall inspections conducted in accordance with this provision occur at intervals greater than 10 years in the case of vessels conducting the annual visual inspection as specified in paragraphs (a)(2) and (a)(3(ii) of this section and at intervals no greater than 5 years in the case of vessels specified in paragraph (a)(3)(i) of this section.

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(5) Notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel for which an inspection is required by paragraphs (a)(1) and (a)(4) of this section to afford the Administrator the opportunity to have an observer present. If the inspection required by paragraph

- (a)(4) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance or refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.
- (b) After installing the control equipment required to meet 60.112b(a)(2) (external floating roof), the owner or operator shall:
- (1) Determine the gap areas and maximum gap widths, between the primary seal and the wall of the storage vessel and between the secondary seal and the wall of the storage vessel according to the following frequency.
- (i) Measurements of gaps between the tank wall and the primary seal (seal gaps) shall be performed during the hydrostatic testing of the vessel or within 60 days of the initial fill with VOL and at least once every 5 years thereafter.
- (ii) Measurements of gaps between the tank wall and the secondary seal shall be performed within 60 days of the initial fill with VOL and at least once per year thereafter.
- (iii) If any source ceases to store VOL for a period of 1 year or more, subsequent introduction of VOL into the vessel shall be considered an initial fill for the purposes of paragraphs (b)(1)(i) and (b)(1)(ii) of this section.
- (2) Determine gap widths and areas in the primary and secondary seals individually by the following procedures:
- (i) Measure seal gaps, if any, at one or more floating roof levels when the roof is floating off the roof leg supports.
- (ii) Measure seal gaps around the entire circumference of the tank in each place where a 0.32-cm diameter uniform probe passes freely (without forcing or binding against seal) between the seal and the wall of the storage vessel and measure the circumferential distance of each such location.
- (iii) The total surface area of each gap described in paragraph (b)(2)(ii) of this section shall be determined by using probes of various widths to measure accurately the actual distance from the tank wall to the seal and multiplying each such width by its respective circumferential distance.
- (3) Add the gap surface area of each gap location for the primary seal and the secondary seal individually and divide the sum for each seal by the nominal diameter of the tank and compare each ratio to the respective standards in paragraph (b)(4) of this section.
- (4) Make necessary repairs or empty the storage vessel within 45 days of identification in any inspection for seals not meeting the requirements listed in (b)(4)(i) and (ii) of this section:
- (i) The accumulated area of gaps between the tank wall and the mechanical shoe or liquid-mounted primary seal shall not exceed 212 Cm2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 3.81 cm.
- (A) One end of the mechanical shoe is to extend into the stored liquid, and the other end is to extend a minimum vertical distance of 61 cm above the stored liquid surface.
- (B) There are to be no holes, tears, or other openings in the shoe, seal fabric, or seal envelope.
- (ii) The secondary seal is to meet the following requirements:
- (A) The secondary seal is to be installed above the primary seal so that it completely covers the space between the roof

edge and the tank wall except as provided in paragraph (b)(2)(iii) of this section.

- (B) The accumulated area of gaps between the tank wall and the secondary seal shall not exceed 21.2 cm2 per meter of tank diameter, and the width of any portion of any gap shall not exceed 1.27 cm.
- (C) There are to be no holes, tears, or other openings in the seal or seal fabric.
- (iii) If a failure that is detected during inspections required in paragraph (b)(1) of 60.113b(b) cannot be repaired within 45 days and if the vessel cannot be emptied within 45 days, a 30-day extension may be requested from the Administrator in the inspection report required in 60.115b(b)(4). Such extension request must include a demonstration of unavailability of alternate storage capacity and a specification of a schedule that will assure that the control equipment will be repaired or the vessel will be emptied as soon as possible.
- (5) Notify the Administrator 30 days in advance of any gap measurements required by paragraph (b)(1) of this section to afford the Administrator the opportunity to have an observer present.
- (6) Visually inspect the external floating roof, the primary seal, secondary seal, and fittings each time the vessel is emptied and degassed.
- (i) If the external floating roof has defects, the primary seal has holes, tears, or other openings in the seal or the seal fabric, or the secondary seal has holes, tears, or other openings in the seal or the seal fabric, the owner or operator shall repair the items as necessary so that none of the conditions specified in this paragraph exist before filling or refilling the storage vessel with VOL.
- (ii) For all the inspections required by paragraph (b)(6) of this section, the owner or operator shall notify the Administrator in writing at least 30 days prior to the filling or refilling of each storage vessel to afford the Administrator the opportunity to inspect the storage vessel prior to refilling. If the inspection required by paragraph (b)(6) of this section is not planned and the owner or operator could not have known about the inspection 30 days in advance of refilling the tank, the owner or operator shall notify the Administrator at least 7 days prior to the refilling of the storage vessel. Notification shall be made by telephone immediately followed by written documentation demonstrating why the inspection was unplanned. Alternatively, this notification including the written documentation may be made in writing and sent by express mail so that it is received by the Administrator at least 7 days prior to the refilling.
- (c) The owner or operator of each source that is equipped with a closed vent system and control device as required in 60.112b (a)(3) or (b)(2) (other than a flare) is exempt from 60.8 of the General Provisions and shall meet the following requirements.
- (1) Submit for approval by the Administrator as an attachment to the notification required by 60.7(a)(1) or, if the facility is exempt from 60.7(a)(1), as an attachment to the notification required by 60.7(a)(2), an operating plan containing the information listed below.
- (i) Documentation demonstrating that the control device will achieve the required control efficiency during maximum loading conditions. This documentation is to include a description of the gas stream which enters the control device, including flow and VOC content under varying liquid level conditions (dynamic and static) and manufacturer's design specifications for the

control device. If the control device or the closed vent capture system receives vapors, gases, or liquids other than fuels from sources that are not designated sources under this subpart, the efficiency demonstration is to include consideration of all vapors, gases, and liquids received by the closed vent capture system and control device. If an enclosed combustion device with a minimum residence time of 0.75 seconds and a minimum temperature of 816 C is used to meet the 95 percent requirement, documentation that those conditions will exist is sufficient to meet the requirements of this paragraph.

- (ii) A description of the parameter or parameters to be monitored to ensure that the control device will be operated in conformance with its design and an explanation of the criteria used for selection of that parameter (or parameters).
- (2) Operate the closed vent system and control device and monitor the parameters of the closed vent system and control device in accordance with the operating plan submitted to the Administrator in accordance with paragraph (c)(1) of this section, unless the plan was modified by the Administrator during the review process. In this case, the modified plan applies.
- (d) The owner or operator of each source that is equipped with a closed vent system and a flare to meet the requirements in 60.112b (a)(3) or (b)(2) shall meet the requirements as specified in the general control device requirements, 60.18 (e) and (f).

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11, 1989]

12583

60.114b Alternative means of emission limitation. 8231

- (a) If, in the Administrator's judgment, an alternative means of emission limitation will achieve a reduction in emissions at least equivalent to the reduction in emissions achieved by any requirement in 60.112b, the Administrator will publish in the Federal Register a notice permitting the use of the alternative means for purposes of compliance with that requirement.
- (b) Any notice under paragraph (a) of this section will be published only after notice and an opportunity for a hearing.
- (c) Any person seeking permission under this section shall submit to the Administrator a written application including:
- (1) An actual emissions test that uses a full-sized or scalemodel storage vessel that accurately collects and measures all VOC emissions from a given control device and that accurately simulates wind and accounts for other emission variables such as temperature and barometric pressure.
- (2) An engineering evaluation that the Administrator determines is an accurate method of determining equivalence.
- (d) The Administrator may condition the permission on requirements that may be necessary to ensure operation and maintenance to achieve the same emissions reduction as specified in 60.112b.

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60.115b Reporting and recordkeeping requirements. 8231

The owner or operator of each storage vessel as specified in 60.112b(a) shall keep records and furnish reports as required by paragraphs (a), (b), or (c) of this section depending upon the control equipment installed to meet the requirements of 60.112b. The owner or operator shall keep copies of all reports and records required by this section, except for the record required by (c)(1), for at least 2 years. The record required by (c)(1) will be kept for the life of the control equipment.

- (a) After installing control equipment in accordance with 60.112b(a)(1) (fixed roof and internal floating roof), the owner or operator shall meet the following requirements.
- (1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of 60.112b(a)(1) and 60.113b(a)(1). This report shall be an attachment to the notification required by 60.7(a)(3).
- (2) Keep a record of each inspection performed as required by 60.113b (a)(1), (a)(2), (a)(3), and (a)(4). Each record shall identify the storage vessel on which the inspection was performed and shall contain the date the vessel was inspected and the observed condition of each component of the control equipment (seals, internal floating roof, and fittings).
- (3) If any of the conditions described in 60.113b(a)(2) are detected during the annual visual inspection required by 60.113b(a)(2), a report shall be furnished to the Administrator within 30 days of the inspection. Each report shall identify the storage vessel, the nature of the defects, and the date the storage vessel was emptied or the nature of and date the repair was made.
- (4) After each inspection required by 60.113b(a)(3) that finds holes or tears in the seal or seal fabric, or defects in the internal floating roof, or other control equipment defects listed in 60.113b(a)(3)(ii), a report shall be furnished to the Administrator within 30 days of the inspection. The report shall identify the storage vessel and the reason it did not meet the specifications of 61.112b(a)(1) or 60.113b(a)(3) and list each repair made.
- (b) After installing control equipment in accordance with 61.112b(a)(2) (external floating roof), the owner or operator shall meet the following requirements.
- (1) Furnish the Administrator with a report that describes the control equipment and certifies that the control equipment meets the specifications of 60.112b(a)(2) and 60.113b(b)(2), (b)(3), and (b)(4). This report shall be an attachment to the notification required by 60.7(a)(3).
- (2) Within 60 days of performing the seal gap measurements required by 60.113b(b)(1), furnish the Administrator with a report that contains:
- (i) The date of measurement.
- (ii) The raw data obtained in the measurement.
- (iii) The calculations described in 60.113b (b)(2) and (b)(3).
- (3) Keep a record of each gap measurement performed as required by 60.113b(b). Each record shall identify the storage vessel in which the measurement was performed and shall contain:
- (i) The date of measurement.
- (ii) The raw data obtained in the measurement.
- (iii) The calculations described in 60.113b (b)(2) and (b)(3).
- (4) After each seal gap measurement that detects gaps exceeding the limitations specified by 60.113b(b)(4), submit a report to the Administrator within 30 days of the inspection. The report will identify the vessel and contain the information specified in paragraph (b)(2) of this section and the date the vessel was emptied or the repairs made and date of repair.
- (c) After installing control equipment in accordance with 60.112b (a)(3) or (b)(1) (closed vent system and control device other than a flare), the owner or operator shall keep the following records
- (1) A copy of the operating plan.
- (2) A record of the measured values of the parameters monitored in accordance with 60.113b(c)(2).

- (d) After installing a closed vent system and flare to comply with 60.112b, the owner or operator shall meet the following requirements.
- (1) A report containing the measurements required by 60.18(f) (1), (2), (3), (4), (5), and (6) shall be furnished to the Administrator as required by 60.8 of the General Provisions. This report shall be submitted within 6 months of the initial start-up date.
- (2) Records shall be kept of all periods of operation during which the flare pilot flame is absent.
- (3) Semiannual reports of all periods recorded under 60.115b(d)(2) in which the pilot flame was absent shall be furnished to the Administrator.

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60.116b Monitoring of operations.

- (a) The owner or operator shall keep copies of all records required by this section, except for the record required by paragraph (b) of this section, for at least 2 years. The record required by paragraph (b) of this section will be kept for the life of the source.
- (b) The owner or operator of each storage vessel as specified in 60.110b(a) shall keep readily accessible records showing the dimension of the storage vessel and an analysis showing the capacity of the storage vessel. Each storage vessel with a design capacity less than 75 m3 is subject to no provision of this subpart other than those required by this paragraph.
- (c) Except as provided in paragraphs (f) and (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m3 storing a liquid with a maximum true vapor pressure greater than or equal to 3.5 kPa or with a design capacity greater than or equal to 75 m3 but less than 151 m3 storing a liquid with a maximum true vapor pressure greater than or equal to 15.0 kPa shall maintain a record of the VOL stored, the period of storage, and the maximum true vapor pressure of that VOL during the respective storage period.
- (d) Except as provided in paragraph (g) of this section, the owner or operator of each storage vessel either with a design capacity greater than or equal to 151 m3 storing a liquid with a maximum true vapor pressure that is normally less than 5.2 kPa or with a design capacity greater than or equal to 75 m3 but less than 151 m3 storing a liquid with a maximum true vapor pressure that is normally less than 27.6 kPa shall notify the Administrator within 30 days when the maximum true vapor pressure of the liquid exceeds the respective maximum true vapor vapor pressure values for each volume range.
- (e) Available data on the storage temperature may be used to determine the maximum true vapor pressure as determined below.
- (1) For vessels operated above or below ambient temperatures, the maximum true vapor pressure is calculated based upon the highest expected calendar-month average of the storage temperature. For vessels operated at ambient temperatures, the maximum true vapor pressure is calculated based upon the maximum local monthly average ambient temperature as reported by the National Weather Service.
- (2) For crude oil or refined petroleum products the vapor pressure may be obtained by the following:
- (i) Available data on the Reid vapor pressure and the maximum expected storage temperature based on the highest expected calendarmonth average temperature of the stored product may be used to determine the maximum true vapor pressure from nomographs contained in API Bulletin 2517 (incorporated by reference-see

- 60.17), unless the Administrator specifically requests that the liquid be sampled, the actual storage temperature determined, and the Reid vapor pressure determined from the sample(s).
- (ii) The true vapor pressure of each type of crude oil with a Reid vapor pressure less than 13.8 kPa or with physical properties that preclude determination by the recommended method is to be determined from available data and recorded if the estimated maximum true vapor pressure is greater than 3.5 kPa.
 - (3) For other liquids, the vapor pressure:
- (i) May be obtained from standard reference texts, or
- (ii) Determined by ASTM Method D2879-83 (incorporated by referencesee 60.17); or
- (iii) Measured by an appropriate method approved by the Administrator; or
- (iv) Calculated by an appropriate method approved by the Administrator.
- (f) The owner or operator of each vessel storing a waste mixture of indeterminate or variable composition shall be subject to the following requirements.
- (1) Prior to the initial filling of the vessel, the highest maximum true vapor pressure for the range of anticipated liquid compositions to be stored will be determined using the methods described in paragraph (e) of this section.
- (2) For vessels in which the vapor pressure of the anticipated liquid composition is above the cutoff for monitoring but below the cutoff for controls as defined in 60.112b(a), an initial physical test of the vapor pressure is required; and a physical test at least once every 6 months thereafter is required as determined by the following methods:
- (i) ASTM Method D2879-83 (incorporated by reference-see 60.17); or
- (ii) ASTM Method D323-82 (incorporated by reference-see 60.17); or
- (iii) As measured by an appropriate method as approved by the Administrator.
- (g) The owner or operator of each vessel equipped with a closed vent system and control device meeting the specifications of 60.112b is exempt from the requirements of paragraphs (c) and (d) of this section.

- 60.117b Delegation of authority.
- (a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.
- (b) Authorities which will not be delegated to States: 60.111b(f)(4), 60.114b, 60.116b(e)(3)(iii), 60.116b(e)(3)(iv), and 60.116b(f)(2)(iii). 13863
- [52 FR 11429, Apr. 8, 1987, as amended at 52 FR 22780, June 16, 1987]

Company Laketon Refining Corporation

Address C2784 West Lukens Lake Road, Laketon, Indiana 46943

FESOP: F 169-7939
Plt ID: 169-00006
Reviewer: Mark L. Kramer
Date: December 16, 1996

POTENTIAL EMISSIONS (tons per year)

Operation	PM	PM-10	VOC	CO	SO2	NOX
SB-901 & 903						
Natural Gas	0.369	1.48	1.07	16.3	0.117	19.4
No. 1 and No.2 Oil	2.77	2.77	0.472	6.94	98.6	27.7
Bio Fuel	2.98	2.98	0.462	7.49	38.2	29.8
Worst Case Combustion	2.98	2.98	1.07	16.3	98.6	29.8
SB-904						
Natural Gas	0.139	0.557	0.403	6.15	0.044	7.32
No. 1 and No.2 Oil	1.05	1.05	0.178	2.62	37.1	10.5
No. 6 Oil	3.82	3.82	0.552	2.44	38.3	26.9
Bio Fuel	1.13	1.13	0.142	2.81	14.4	11.3
Worst Case Combustion	3.82	3.82	0.552	6.15	38.3	26.9
THE-930, TO-1, THI-943						
THI-944, 956, 960 & 961						
Natural Gas Combustion	0.590	2.36	1.71	26.1	0.186	31.0
	2.22	2.22	2.45	2.22	2.22	
Standing & Working Losses	0.00	0.00	2.45	0.00	0.00	0.00
All Storage Tanks						
Loading Racks						
Kerosene	0.000	0.000	8.410	0.000	0.000	0.000
Asphalt Cement	0.000	0.000	0.000	0.000	0.000	0.000
Cutback Asphalt	0.000	0.000	0.002	0.000	0.000	0.000
Oxidized Asphalt	0.000	0.000	0.000	0.000	0.000	0.000
Total Loading Racks	0.000	0.000	8.412	0.000	0.000	0.000
3			-			
4 Asphalt Oxidizing Tank						
Process Operations	1,484	1,484	103	489	0.00	0.00
4 Asphalt Oxidizing Tank						
Process Operations						
After Controls (99% control e	44.04	14.04	4.03	4.00	0.000	0.000
After Controls (99% control el	14.84	14.84	1.03	4.89	0.000	0.000
Waste Water Treatment	0.000	0.000	39.42	0.000	0.000	0.000
From TSD)						
Total Worse Case						
Potential Emissions Before C	1491.39	1493.16	156.614	537.55	137.086	87.7
	_					
Total Worse Case						
Potential Emissions After Cor	22.23	24.00	54.644	53.44	137.086	87.7

Appendix A: Emissions Calculations Natural Gas Combustion Only

Small Industrial Boiler

MM BTU/HR <100

Company NLaketon Refining Corporation

Address Ci 2784 West Lukens Lake Road, Laketon, Indiana 46943

FESOP: F 169-7939 Plt ID: 169-00006

Reviewer: Mark L. Kramer

Date: December 16, 1996

ALL UNITS EX	XCEPT BOILE	RS SB-901,903 & 904	ı	EU	MMBtu/hr	EU	MMBtu/hr
Heat Input Cap	pacity	Potential Thro	ughput	SB-901	36.000	THI-943	9.000
MMBtu/hr		MMCF/yr		SB-903	8.370	THI-944	4.500
				SB-904	16.723	THI-956	3.000
70.850		620.6		THE-930	7.150	THI-960	21.000
				TO-1	8.200	THI-961	18.000
						All except SB	70.850
			Pollutant				
		PM*	PM10*	SO2	NOx	VOC	CO
Emission Facto	or in lb/MMCF	1.90	7.60	0.6	100.0	5.5	84.0
					**see below		
Potential Emis	sion in tons/yr	0.590	2.36	0.186	31.0	1.71	26.1
36.000	SB-901	315.360					
Potential Emis		0.300	1.198	0.095	15.768	0.867	13.245
8.370	SB-903	73.321	·			·	
Potential Emis		0.0697	0.279	0.022	3.666	0.202	3.079
	SB-904	•			-		
16.723		146.5					
Potential Emis	•	0.139	0.557	0.044	7.32	0.403	6.15

^{*}PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

^{**}Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Small Industrial Boiler
HAPs Emissions

Page 3 of 8 TSD App A

Company NLaketon Refining Corporation

Address Ci 2784 West Lukens Lake Road, Laketon, Indiana 46943

FESOP: F 169-7939 Plt ID: 169-00006

Reviewer: Mark L. Kramer
Date: December 16, 1996

HAPs - Organics

		Dichlorobenz	Formaldehyd		
	Benzene	ene	е	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	6.517E-04	3.724E-04	2.327E-02	5.586E-01	1.055E-03
otential Emission in toris/yi	0.017 = 04	0.7242 04	2.027 2 02	0.000L 01	1.0002 00
		l			

HAPs - Metals

Emission Factor in lb/MMcf	Lead	Cadmium	Chromium	Manganese	Nickel
	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.552E-04	3.414E-04	4.345E-04	1.179E-04	6.517E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations Page 4 of 8 TSD App A Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr) #1 and #2 Fuel Oil

EU

MMBtu/hr

Company N Laketon Refining Corporation

Address Cit 2784 West Lukens Lake Road, Laketon, Indiana 46943

FESOP: F 169-7939 Plt ID: 169-00006

Reviewer: Mark L. Kramer

 SB-901, 903 & 904
 SB-901
 36.000

 Heat Input Capacity
 Potential Throughput
 S = Weight % Sulfur
 SB-903
 8.370

 MMBtu/hr
 kgals/year
 0.5
 SB-904
 16.723

 Total
 61.093

Date: December 16, 1996

61.093 3822.676286

			Pollutant					
		PM*	SO2	NOx	VOC	CO		
Emission Facto	r in lb/kgal	2.0	71	20.0	0.34	5.0		
			(142.0S)					
Potential Emiss	ion in tons/yr	3.82	135.7	38.2	0.650	9.56		
	_							
36.00	SB-901	2252.571429						
Potential Emiss		2.25	80.0	22.5	0.383	5.63		
8.37	SB-903	523.7228571						
Potential Emiss		0.52	18.59	5.24	0.09	1.31		
					•			
16.723	SB-904	1046.382						
Potential Emiss		1.05	37.15	10.46	0.18	2.62		

Methodology

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton above emission factors to

¹ gallon of No. 2 Fuel Oil has a heating value of 140,000 Btu

^{*}PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Appendix A: Emissions Calculations Page 5 of 8 TSD App A Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr) #1 and #2 Fuel Oil HAPs Emissions

Company N Laketon Refining Corporation Address Cit 2784 West Lukens Lake Road, Laketon, Indiana 46943

FESOP: F 169-7939 Plt ID: 169-00006

Reviewer: Mark L. Kramer

Date: December 16, 1996

Total HAPs - Metals

	. ota.				
Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	1.07E-03	8.03E-04	8.03E-04	8.03E-04	2.41E-03

HAPs - Metals (continued)

Emission Factor in lb/mmBtu	Mercury	Manganese	Nickel	Selenium
	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	8.03E-04	1.61E-03	8.03E-04	4.01E-03

Methodology

No data was available in AP-42 for organic HAPs.

Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emissions Calculations Page 6 of 8 TSD App A Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr) #6 Fuel Oil

Company NLaketon Refining Corporation

Address Cit 2784 West Lukens Lake Road, Laketon, Indiana 46943

FESOP: F 169-7939 Plt ID: 169-00006

Reviewer: Mark L. Kramer

Date: December 16, 1996

SB-904 only MMBtu/hr SB-904 16.723

Heat Input Capacity Potential Throughput

MMBtu/hr kgals/year <u>S = Weight % Sulfur</u>

0.5

16.723 976.6232

		Pollutant						
	PM**	SO2	NOx	VOC	CO			
Emission Factor in lb/kgal	7.82	78.5	55.0	1.13	5.0			
	*see below	(157S)						
Potential Emission in tons/yr	3.82	38.3	26.9	0.552	2.44			

^{*}Particulate Matter emission factor for #5 fuel oil is 10.0 lb/kgal

Methodology

1 gallon of #5 Fuel oil has a heating value of 139,000 Btu

1 gallon of #6 Fuel oil has a heating value of 150,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.150 MMBtu Emission Factors are from AP 42 Tables 1.3-1, 1.3-2 and 1.3-3 (SCC 1-03-004-02/03,1-02-004-02/03, and 1-03-004-04) (AP-42 Supplement E 9/98)

Emission (tons/yr) = Throughput (kgals/year) x Emission Factor (lb/kgal)/2,000 lb/ton emission factors to

^{*}Particulate Matter emission factor for #6 fuel oil is 9.19(s) + 3.22 lb/kgal

^{**}PM emission factor is filterable PM only. Condensable PM emission factor is 1.5 lb/kgal.



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Appendix A: Emissions Calculations Commercial/Institutional/Residential Combustors

BioFuel 50% Soy Oil and 50% No. 2 Oil

Company N Laketon Refining Corporation

Address Cit 2784 West Lukens Lake Road, Laketon, Indiana 46943

FESOP: F 169-7939 Plt ID: 169-00006

Reviewer: Mark L. Kramer

Date: December 16, 1996

EU MMBtu/hr SB-901 SB-901 36.000 **Heat Input Capacity** Potential Throughput S = Weight % Sulfur SB-903 8.370 kgals/year MMBtu/hr 0.18 SB-904 16.723 Total 61.093

36.000 2423.907028

		Pollutant							
	PM	SO2	NOx	VOC	CO				
Emission Factor in lb/kgal	2.0	25.56	20.0	0.252	5.0				
		142*%S							
Potential Emission in tons/yr	2.42	31.0	24.2	0.305	6.06				

SB-903

Heat Input Capacity MMBtu/hr

Potential Throughput kgals/year

S = Weight % Sulfur 0.18

8.370

563.5583841

		Pollutant						
	PM	SO2	NOx	VOC	CO			
Emission Factor in lb/kgal	2.0	25.56	20.0	0.556	5.0			
		142*%S						
Potential Emission in tons/yr	0.564	7.20	5.64	0.157	1.41			

Company N Laketon Refining Corporation

Page 8 of 8 TSD App A

Address Cit 2784 West Lukens Lake Road, Laketon, Indiana 46943

FESOP: F 169-7939 Plt ID: 169-00006

Reviewer: Mark L. Kramer

Date: December 16, 1996

SB-904			SB-901	36.000
Heat Input Capacity	Potential Throughput	S = Weight % Sulfur	SB-903	8.370
MMBtu/hr	kgals/year	0.18	SB-904	16.723
			Total	61.093

16.723 1125.972145

		Pollutant						
	PM	SO2	NOx	VOC	СО			
Emission Factor in lb/kgal	2.0	25.56	20.0	0.252	5.0			
		142*%S						
Potential Emission in tons/yr	1.13	14.4	11.3	0.142	2.81			

Total SB-901, 903 and 904

Pollutant									
PM	SO2	NOx	VOC	СО					
4.11	52.6	41.1	0.604	10.3					

Methodology

1 gallon of Bio Fuel has a heating value of 130,104 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.130104 MM Btu Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton above

emission

factors to

Blended Oil/Soy OII emission factors for Heritage Bio Fuel supplied by Applicant for %S and VOC emission factors